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Automated Report

Technical Report for

Cape Environmental Management Inc.

OB/OD Site I, OB Site II, Fort Bliss, TX

SGS Accutest Job Number: FA42100

Sampling Date: 03/15/17

Report to:

Cape Environmental Mangement Inc.

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ATTN: (b) (6)

Total number of pages in report: 137



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

Client Service contact: (b) (6) (b) (6) 3

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Test results relate only to samples analyzed.



April 8, 2017

Mr. (b) (6)
Cape Inc.
500 Pinnacle Ct
Norcross, GA 30071

RE: SGS Accutest job FA42100 Reissue

Dear (b) (6),

The final report for job number FA42100 has been edited to reflect requested corrections. These edits have been incorporated into the revised report.

The report has been changed to the DL/LOD/LOQ format.

SGS Accutest apologies for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS Accutest Orlando

Florida ♦ 4405 Vineland Road ♦ Suite C-15 ♦ Orlando, FL 32811 ♦ tel: 407 425-6700 ♦ fax: 407 425-0707 ♦ <http://www.sgs.com>

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Sample Summary

Cape Environmental Management Inc.

Job No: FA42100

OB/OD Site I, OB Site II, Fort Bliss, TX

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA42100-1	03/15/17	11:15	BB	03/16/17	SO	Soil	OBOD1-AU01-SS-01
FA42100-2	03/15/17	11:15	BB	03/16/17	SO	Soil	OBOD1-AU01-SS-02
FA42100-3	03/15/17	11:15	BB	03/16/17	SO	Soil	OBOD1-AU01-SS-03
FA42100-4	03/15/17	13:30	BB	03/16/17	SO	Soil	OBOD1-AU02-SS-01
FA42100-4D	03/15/17	13:30	BB	03/16/17	SO	Soil Dup/MSD	OBOD1-AU02-SS-01
FA42100-4S	03/15/17	13:30	BB	03/16/17	SO	Soil Matrix Spike	OBOD1-AU02-SS-01
FA42100-5	03/15/17	15:00	BB	03/16/17	SO	Soil	OBOD1-AU03-SS-01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Cape Environmental Management Inc.

Job No: FA42100

Site: OB/OD Site I, OB Site II, Fort Bliss, TX

Report Date: 5/16/2017 10:02:06

5 Sample(s) were collected on 03/15/2017 and were received at SGS Accutest Southeast (SASE) on 03/16/2017 properly preserved, at 3.4 Deg. C and intact. These Samples received an SASE job number of FA42100. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

FA42100-1, FA42100-2, FA42100-3, FA42100-4, FA42100-5: Samples air dried prior to analysis; percent solids reported as 100%.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: SO

Batch ID: OP64340

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA42100-4MS, FA42100-4MSD were used as the QC samples indicated.

Matrix Spike/ Matrix Spike Duplicate Recovery(s) for Dibenzo(a,h)anthracene, Pyrene are outside control limits. Probable cause is due to matrix interference.

Sample(s) FA42100-1, FA42100-2, FA42100-3, FA42100-4, FA42100-5 have surrogates outside control limits. Probable cause is due to matrix interference.

OP64340-MB for Terphenyl-d14: Outside DoD QSM control limits.

OP64340-BS for Terphenyl-d14: Outside DoD QSM control limits.

OP64340-MS2 for Dibenzo(a,h)anthracene: Outside DoD QSM control limits.

OP64340-MS2 for Pyrene: Outside DoD QSM control limits.

OP64340-MS2 for Terphenyl-d14: Outside DoD QSM control limits.

OP64340-MSD2 for Dibenzo(a,h)anthracene: Outside DoD QSM control limits.

OP64340-MSD2 for Pyrene: Outside DoD QSM control limits.

OP64340-MSD2 for Terphenyl-d14: Outside DoD QSM control limits.

FA42100-1 for Terphenyl-d14: Outside DoD QSM control limits.

FA42100-2 for Terphenyl-d14: Outside DoD QSM control limits.

FA42100-3 for Terphenyl-d14: Outside DoD QSM control limits.

FA42100-4 for Terphenyl-d14: Outside DOD QSM control limits due to matrix interference. Confirmed by re-extraction and reanalysis beyond hold time.

FA42100-5 for Terphenyl-d14: Outside DoD QSM control limits.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: SO

Batch ID: OP64416

The following samples were re-analyzed outside of holding time for confirmation: SW846 8270D BY SIM: FA42100-4.

Sample(s) FA42100-4 have surrogates outside DOD QSM control limits. Probable cause is due to matrix interference.

FA42100-4: Confirmation run.

SGS Accutest (SASE) certifies that this report meets the project requirements for analytical data produced for the samples as received at SASE and as stated on the COC. SASE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SASE Quality Manual except as noted above. This report is to be used in its entirety. SASE is not responsible for any assumptions of data quality if partial data packages are used.

(b) (6)

(b) (6)

Date: May 16, 2017

Tuesday, May 16, 2017

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Summary of Hits

Page 1 of 1

Job Number: FA42100
Account: Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX
Collected: 03/15/17

W

Lab Sample ID	Client Sample ID	Result/ Analyte	LOQ	LOD	Units	Method
FA42100-1 OBOD1-AU01-SS-01						
		Benzo(a)anthracene	3.4 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(a)pyrene	4.7 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(b)fluoranthene	8.4 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(g,h,i)perylene	4.2 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Chrysene	5.6 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Indeno(1,2,3-cd)pyrene	4.1 J	14	6.8 ug/kg	SW846 8270D BY SIM
FA42100-2 OBOD1-AU01-SS-02						
		Benzo(a)pyrene	5.1 J	13	6.6 ug/kg	SW846 8270D BY SIM
		Benzo(b)fluoranthene	9.8 J	13	6.6 ug/kg	SW846 8270D BY SIM
		Benzo(g,h,i)perylene	5.4 J	13	6.6 ug/kg	SW846 8270D BY SIM
		Chrysene	6.3 J	13	6.6 ug/kg	SW846 8270D BY SIM
		Indeno(1,2,3-cd)pyrene	5.5 J	13	6.6 ug/kg	SW846 8270D BY SIM
FA42100-3 OBOD1-AU01-SS-03						
		Benzo(b)fluoranthene	6.0 J	13	6.5 ug/kg	SW846 8270D BY SIM
		Chrysene	3.8 J	13	6.5 ug/kg	SW846 8270D BY SIM
FA42100-4 OBOD1-AU02-SS-01						
		Benzo(b)fluoranthene	5.8 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Chrysene	3.8 J	14	6.8 ug/kg	SW846 8270D BY SIM
FA42100-5 OBOD1-AU03-SS-01						
		Benzo(a)anthracene	4.5 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(a)pyrene	5.6 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(b)fluoranthene	10.4 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(g,h,i)perylene	5.1 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Benzo(k)fluoranthene	3.8 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Chrysene	6.5 J	14	6.8 ug/kg	SW846 8270D BY SIM
		Indeno(1,2,3-cd)pyrene	5.3 J	14	6.8 ug/kg	SW846 8270D BY SIM

Sample Results

Report of Analysis

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Report of Analysis

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Client Sample ID: OBOD1-AU01-SS-01

Lab Sample ID: FA42100-1

Date Sampled: 03/15/17

Matrix: SO - Soil

Date Received: 03/16/17

Method: SW846 8270D BY SIM SW846 3546

Percent Solids: n/a ^a

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W098331.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
Run #2							

	Initial Weight	Final Volume
Run #1	14.7 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
83-32-9	Acenaphthene	34 U	68	34	27	ug/kg	
208-96-8	Acenaphthylene	34 U	68	34	27	ug/kg	
120-12-7	Anthracene	34 U	68	34	17	ug/kg	
56-55-3	Benzo(a)anthracene	3.4	14	6.8	3.4	ug/kg	J
50-32-8	Benzo(a)pyrene	4.7	14	6.8	3.4	ug/kg	J
205-99-2	Benzo(b)fluoranthene	8.4	14	6.8	3.4	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	4.2	14	6.8	3.4	ug/kg	J
207-08-9	Benzo(k)fluoranthene	6.8 U	14	6.8	3.4	ug/kg	
218-01-9	Chrysene	5.6	14	6.8	3.4	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	6.8 U	14	6.8	3.4	ug/kg	
206-44-0	Fluoranthene	34 U	68	34	17	ug/kg	
86-73-7	Fluorene	34 U	68	34	27	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4.1	14	6.8	3.4	ug/kg	J
90-12-0	1-Methylnaphthalene	34 U	68	34	27	ug/kg	
91-57-6	2-Methylnaphthalene	34 U	68	34	27	ug/kg	
91-20-3	Naphthalene	34 U	68	34	27	ug/kg	
85-01-8	Phenanthrene	34 U	68	34	17	ug/kg	
129-00-0	Pyrene	34 U	68	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	49%		40-105%
321-60-8	2-Fluorobiphenyl	51%		43-107%
1718-51-0	Terphenyl-d14	45% ^b		45-119%

(a) Sample air dried prior to analysis; percent solids reported as 100%.

(b) Outside DoD QSM control limits.

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	OBOD1-AU01-SS-02				
Lab Sample ID:	FA42100-2			Date Sampled:	03/15/17
Matrix:	SO - Soil			Date Received:	03/16/17
Method:	SW846 8270D BY SIM SW846 3546			Percent Solids:	n/a ^a
Project:	OB/OD Site I, OB Site II, Fort Bliss, TX				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W098421.D	1	03/30/17	FS	03/26/17	OP64340	SW4370
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
83-32-9	Acenaphthene	33 U	66	33	26	ug/kg	
208-96-8	Acenaphthylene	33 U	66	33	26	ug/kg	
120-12-7	Anthracene	33 U	66	33	16	ug/kg	
56-55-3	Benzo(a)anthracene	6.6 U	13	6.6	3.3	ug/kg	
50-32-8	Benzo(a)pyrene	5.1	13	6.6	3.3	ug/kg	J
205-99-2	Benzo(b)fluoranthene	9.8	13	6.6	3.3	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	5.4	13	6.6	3.3	ug/kg	J
207-08-9	Benzo(k)fluoranthene	6.6 U	13	6.6	3.3	ug/kg	
218-01-9	Chrysene	6.3	13	6.6	3.3	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	6.6 U	13	6.6	3.3	ug/kg	
206-44-0	Fluoranthene	33 U	66	33	16	ug/kg	
86-73-7	Fluorene	33 U	66	33	26	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5.5	13	6.6	3.3	ug/kg	J
90-12-0	1-Methylnaphthalene	33 U	66	33	26	ug/kg	
91-57-6	2-Methylnaphthalene	33 U	66	33	26	ug/kg	
91-20-3	Naphthalene	33 U	66	33	26	ug/kg	
85-01-8	Phenanthrene	33 U	66	33	16	ug/kg	
129-00-0	Pyrene	33 U	66	33	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		40-105%
321-60-8	2-Fluorobiphenyl	68%		43-107%
1718-51-0	Terphenyl-d14	58% ^b		45-119%

(a) Sample air dried prior to analysis; percent solids reported as 100%.

(b) Outside DoD QSM control limits.

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	OBOD 1-AU01-SS-03				
Lab Sample ID:	FA42100-3			Date Sampled:	03/15/17
Matrix:	SO - Soil			Date Received:	03/16/17
Method:	SW846 8270D BY SIM SW846 3546			Percent Solids:	n/a ^a
Project:	OB/OD Site I, OB Site II, Fort Bliss, TX				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W098333.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
83-32-9	Acenaphthene	33 U	65	33	26	ug/kg	
208-96-8	Acenaphthylene	33 U	65	33	26	ug/kg	
120-12-7	Anthracene	33 U	65	33	16	ug/kg	
56-55-3	Benzo(a)anthracene	6.5 U	13	6.5	3.3	ug/kg	
50-32-8	Benzo(a)pyrene	6.5 U	13	6.5	3.3	ug/kg	
205-99-2	Benzo(b)fluoranthene	6.0	13	6.5	3.3	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	6.5 U	13	6.5	3.3	ug/kg	
207-08-9	Benzo(k)fluoranthene	6.5 U	13	6.5	3.3	ug/kg	
218-01-9	Chrysene	3.8	13	6.5	3.3	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	6.5 U	13	6.5	3.3	ug/kg	
206-44-0	Fluoranthene	33 U	65	33	16	ug/kg	
86-73-7	Fluorene	33 U	65	33	26	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	6.5 U	13	6.5	3.3	ug/kg	
90-12-0	1-Methylnaphthalene	33 U	65	33	26	ug/kg	
91-57-6	2-Methylnaphthalene	33 U	65	33	26	ug/kg	
91-20-3	Naphthalene	33 U	65	33	26	ug/kg	
85-01-8	Phenanthrene	33 U	65	33	16	ug/kg	
129-00-0	Pyrene	33 U	65	33	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	54%		40-105%
321-60-8	2-Fluorobiphenyl	49%		43-107%
1718-51-0	Terphenyl-d14	45% ^b		45-119%

(a) Sample air dried prior to analysis; percent solids reported as 100%.

(b) Outside DoD QSM control limits.

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Report of Analysis

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Client Sample ID:	OBOD 1-AU02-SS-01				
Lab Sample ID:	FA42100-4			Date Sampled:	03/15/17
Matrix:	SO - Soil			Date Received:	03/16/17
Method:	SW846 8270D BY SIM SW846 3546			Percent Solids:	n/a ^a
Project:	OB/OD Site I, OB Site II, Fort Bliss, TX				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W098334.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
Run #2 ^b	W098433.D	1	03/30/17	FS	03/30/17	OP64416	SW4370

	Initial Weight	Final Volume
Run #1	14.7 g	1.0 ml
Run #2	15.0 g	1.0 ml

BN PAH List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
83-32-9	Acenaphthene	34 UJ	68	34	27	ug/kg	J
208-96-8	Acenaphthylene	34 UJ	68	34	27	ug/kg	J
120-12-7	Anthracene	34 UJ	68	34	17	ug/kg	J
56-55-3	Benzo(a)anthracene	6.8 UJ	14	6.8	3.4	ug/kg	J
50-32-8	Benzo(a)pyrene	6.8 U	14	6.8	3.4	ug/kg	
205-99-2	Benzo(b)fluoranthene	5.8	14	6.8	3.4	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	6.8 UJ	14	6.8	3.4	ug/kg	J
207-08-9	Benzo(k)fluoranthene	6.8 U	14	6.8	3.4	ug/kg	
218-01-9	Chrysene	3.8	14	6.8	3.4	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	6.8 UJ	14	6.8	3.4	ug/kg	J
206-44-0	Fluoranthene	34 U	68	34	17	ug/kg	
86-73-7	Fluorene	34 UJ	68	34	27	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	6.8 UJ	14	6.8	3.4	ug/kg	J
90-12-0	1-Methylnaphthalene	34 UJ	68	34	27	ug/kg	J
91-57-6	2-Methylnaphthalene	34 UJ	68	34	27	ug/kg	J
91-20-3	Naphthalene	34 UJ	68	34	27	ug/kg	J
85-01-8	Phenanthrene	34 UJ	68	34	17	ug/kg	J
129-00-0	Pyrene	34 UJ	68	34	17	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	53%	66%	40-105%
321-60-8	2-Fluorobiphenyl	52%	72%	43-107%
1718-51-0	Terphenyl-d14	44% ^c	55%	45-119%

(a) Sample air dried prior to analysis; percent solids reported as 100%.

(b) Confirmation run.

(c) Outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis beyond hold time.

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

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Client Sample ID: OBOD1-AU03-SS-01

Lab Sample ID: FA42100-5

Date Sampled: 03/15/17

Matrix: SO - Soil

Date Received: 03/16/17

Method: SW846 8270D BY SIM SW846 3546

Percent Solids: n/a ^a

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W098337.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
Run #2							

	Initial Weight	Final Volume
Run #1	14.8 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
83-32-9	Acenaphthene	34 U	68	34	27	ug/kg	
208-96-8	Acenaphthylene	34 U	68	34	27	ug/kg	
120-12-7	Anthracene	34 U	68	34	17	ug/kg	
56-55-3	Benzo(a)anthracene	4.5	14	6.8	3.4	ug/kg	J
50-32-8	Benzo(a)pyrene	5.6	14	6.8	3.4	ug/kg	J
205-99-2	Benzo(b)fluoranthene	10.4	14	6.8	3.4	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	5.1	14	6.8	3.4	ug/kg	J
207-08-9	Benzo(k)fluoranthene	3.8	14	6.8	3.4	ug/kg	J
218-01-9	Chrysene	6.5	14	6.8	3.4	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	6.8 U	14	6.8	3.4	ug/kg	
206-44-0	Fluoranthene	34 U	68	34	17	ug/kg	
86-73-7	Fluorene	34 U	68	34	27	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	5.3	14	6.8	3.4	ug/kg	J
90-12-0	1-Methylnaphthalene	34 U	68	34	27	ug/kg	
91-57-6	2-Methylnaphthalene	34 U	68	34	27	ug/kg	
91-20-3	Naphthalene	34 U	68	34	27	ug/kg	
85-01-8	Phenanthrene	34 U	68	34	17	ug/kg	
129-00-0	Pyrene	34 U	68	34	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	54%		40-105%
321-60-8	2-Fluorobiphenyl	55%		43-107%
1718-51-0	Terphenyl-d14	50% ^b		45-119%

(a) Sample air dried prior to analysis; percent solids reported as 100%.

(b) Outside DoD QSM control limits.

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5 Limits

FA 42100

SGS Accutest Southeast

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL: 407-425-6700 FAX: 407-425-0707

SGS ACCUTEST JOE#

PAGE 1 OF 1

[illegible]

FA42100: Chain of Custody

Page 1 of 3

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA 42100 CLIENT: Parsons PROJECT: Fort Bliss
 DATE/TIME RECEIVED: 03/16/17 1000 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER: _____
 AIRBILL NUMBERS: 7859 2351 5879

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
☐ CHAIN OF CUSTODY NOT RECEIVED (COC)
☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
☐ TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED
☒ TRIP BLANK NOT PROVIDED
☒ TRIP BLANK NOT ON COC
☐ TRIP BLANK INTACT
☐ TRIP BLANK NOT INTACT
☐ RECEIVED WATER TRIP BLANK
☐ RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM _____ 5-GRAM _____
 NUMBER OF 5035 FIELD KITS ? _____
 NUMBER OF LAB FILTERED METALS ? _____

TEST STRIP LOT#s pH 0-3 230315

pH 10-12 219813A

OTHER (specify) _____

SUMMARY OF COMMENTS: _____

TEMPERATURE INFORMATION

- ☐ IR THERM ID 1 CORR. FACTOR +0.4
☐ OBSERVED TEMPS: 3.0
☐ CORRECTED TEMPS: 3.4 (USED FOR LIMS)

SAMPLE INFORMATION

- ☐ INCORRECT NUMBER OF CONTAINERS USED
☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
☐ INSUFFICIENT VOLUME FOR ANALYSIS
☐ DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
☐ ID'S ON COC DO NOT MATCH LABEL
☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
☐ UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
☐ SAMPLE CONTAINER(S) RECEIVED BROKEN
☐ 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
☐ BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
☐ % SOLIDS JAR NOT RECEIVED
☐ RESIDUAL CHLORINE PRESENT LOT# _____

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE

NF 02/16

16/17 REVIEWER SIGNATURE/DATE

receipt confirmation 020116.xls

03/16/17

FA42100: Chain of Custody

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FA42100: Chain of Custody
Page 3 of 3

QC Evaluation: DOD QSM5 Limits

Page 1 of 3

Job Number: FA42100
Account: Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX
Collected: 03/15/17

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
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OP64340 SW846 8270D BY SIM

OP64340-BS	83-32-9	Acenaphthene	BSP	REC	53	%	44-111
OP64340-BS	208-96-8	Acenaphthylene	BSP	REC	55	%	39-116
OP64340-BS	120-12-7	Anthracene	BSP	REC	52 ^a	%	50-114
OP64340-BS	56-55-3	Benzo(a)anthracene	BSP	REC	60	%	54-122
OP64340-BS	50-32-8	Benzo(a)pyrene	BSP	REC	58	%	50-125
OP64340-BS	205-99-2	Benzo(b)fluoranthene	BSP	REC	60	%	53-128
OP64340-BS	191-24-2	Benzo(g,h,i)perylene	BSP	REC	55 ^a	%	49-127
OP64340-BS	207-08-9	Benzo(k)fluoranthene	BSP	REC	63	%	56-123
OP64340-BS	218-01-9	Chrysene	BSP	REC	60 ^a	%	57-118
OP64340-BS	53-70-3	Dibenzo(a,h)anthracene	BSP	REC	50 ^a	%	50-129
OP64340-BS	206-44-0	Fluoranthene	BSP	REC	62	%	55-119
OP64340-BS	86-73-7	Fluorene	BSP	REC	60	%	47-114
OP64340-BS	193-39-5	Indeno(1,2,3-cd)pyrene	BSP	REC	52 ^a	%	49-130
OP64340-BS	90-12-0	1-Methylnaphthalene	BSP	REC	51	%	43-111
OP64340-BS	91-57-6	2-Methylnaphthalene	BSP	REC	48 ^a	%	39-114
OP64340-BS	91-20-3	Naphthalene	BSP	REC	49	%	38-111
OP64340-BS	85-01-8	Phenanthrene	BSP	REC	54 ^a	%	49-113
OP64340-BS	129-00-0	Pyrene	BSP	REC	58	%	55-117
OP64340-BS	4165-60-0	Nitrobenzene-d5	BSP	SURR	62	%	44-125
OP64340-BS	321-60-8	2-Fluorobiphenyl	BSP	SURR	61	%	46-115
OP64340-BS	1718-51-0	Terphenyl-d14	BSP	SURR	54 ^b	%	58-133
OP64340-MS2	83-32-9	Acenaphthene	MS	REC	50	%	44-111
OP64340-MS2	208-96-8	Acenaphthylene	MS	REC	51	%	39-116
OP64340-MS2	120-12-7	Anthracene	MS	REC	50	%	50-114
OP64340-MS2	56-55-3	Benzo(a)anthracene	MS	REC	54	%	54-122
OP64340-MS2	50-32-8	Benzo(a)pyrene	MS	REC	56	%	50-125
OP64340-MS2	205-99-2	Benzo(b)fluoranthene	MS	REC	60	%	53-128
OP64340-MS2	191-24-2	Benzo(g,h,i)perylene	MS	REC	52	%	49-127
OP64340-MS2	207-08-9	Benzo(k)fluoranthene	MS	REC	58	%	56-123
OP64340-MS2	218-01-9	Chrysene	MS	REC	57	%	57-118
OP64340-MS2	53-70-3	Dibenzo(a,h)anthracene	MS	REC	47 ^b	%	50-129
OP64340-MS2	206-44-0	Fluoranthene	MS	REC	60	%	55-119
OP64340-MS2	86-73-7	Fluorene	MS	REC	57	%	47-114
OP64340-MS2	193-39-5	Indeno(1,2,3-cd)pyrene	MS	REC	50	%	49-130
OP64340-MS2	90-12-0	1-Methylnaphthalene	MS	REC	45	%	43-111
OP64340-MS2	91-57-6	2-Methylnaphthalene	MS	REC	44	%	39-114
OP64340-MS2	91-20-3	Naphthalene	MS	REC	43	%	38-111
OP64340-MS2	85-01-8	Phenanthrene	MS	REC	52	%	49-113
OP64340-MS2	129-00-0	Pyrene	MS	REC	54 ^b	%	55-117
OP64340-MS2	4165-60-0	Nitrobenzene-d5	MS	SURR	54	%	44-125
OP64340-MS2	321-60-8	2-Fluorobiphenyl	MS	SURR	55	%	46-115
OP64340-MS2	1718-51-0	Terphenyl-d14	MS	SURR	50 ^b	%	58-133

* Sample used for QC is not from job FA42100

QC Evaluation: DOD QSM5 Limits

Page 2 of 3

Job Number: FA42100
Account: Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX
Collected: 03/15/17

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
OP64340-MSD2	83-32-9	Acenaphthene	MSD	REC	48	%	44-111
OP64340-MSD2	83-32-9	Acenaphthene	MSD	RPD	4	%	20
OP64340-MSD2	208-96-8	Acenaphthylene	MSD	REC	50	%	39-116
OP64340-MSD2	208-96-8	Acenaphthylene	MSD	RPD	4	%	20
OP64340-MSD2	120-12-7	Anthracene	MSD	REC	50	%	50-114
OP64340-MSD2	120-12-7	Anthracene	MSD	RPD	1	%	20
OP64340-MSD2	56-55-3	Benzo(a)anthracene	MSD	REC	59	%	54-122
OP64340-MSD2	56-55-3	Benzo(a)anthracene	MSD	RPD	7	%	20
OP64340-MSD2	50-32-8	Benzo(a)pyrene	MSD	REC	58	%	50-125
OP64340-MSD2	50-32-8	Benzo(a)pyrene	MSD	RPD	3	%	20
OP64340-MSD2	205-99-2	Benzo(b)fluoranthene	MSD	REC	58	%	53-128
OP64340-MSD2	205-99-2	Benzo(b)fluoranthene	MSD	RPD	4	%	20
OP64340-MSD2	191-24-2	Benzo(g,h,i)perylene	MSD	REC	55	%	49-127
OP64340-MSD2	191-24-2	Benzo(g,h,i)perylene	MSD	RPD	5	%	20
OP64340-MSD2	207-08-9	Benzo(k)fluoranthene	MSD	REC	62	%	56-123
OP64340-MSD2	207-08-9	Benzo(k)fluoranthene	MSD	RPD	6	%	20
OP64340-MSD2	218-01-9	Chrysene	MSD	REC	57	%	57-118
OP64340-MSD2	218-01-9	Chrysene	MSD	RPD	1	%	20
OP64340-MSD2	53-70-3	Dibenzo(a,h)anthracene	MSD	REC	47 ^b	%	50-129
OP64340-MSD2	53-70-3	Dibenzo(a,h)anthracene	MSD	RPD	1	%	20
OP64340-MSD2	206-44-0	Fluoranthene	MSD	REC	62	%	55-119
OP64340-MSD2	206-44-0	Fluoranthene	MSD	RPD	3	%	20
OP64340-MSD2	86-73-7	Fluorene	MSD	REC	52	%	47-114
OP64340-MSD2	86-73-7	Fluorene	MSD	RPD	10	%	20
OP64340-MSD2	193-39-5	Indeno(1,2,3-cd)pyrene	MSD	REC	52	%	49-130
OP64340-MSD2	193-39-5	Indeno(1,2,3-cd)pyrene	MSD	RPD	3	%	20
OP64340-MSD2	90-12-0	1-Methylnaphthalene	MSD	REC	45	%	43-111
OP64340-MSD2	90-12-0	1-Methylnaphthalene	MSD	RPD	1	%	20
OP64340-MSD2	91-57-6	2-Methylnaphthalene	MSD	REC	44	%	39-114
OP64340-MSD2	91-57-6	2-Methylnaphthalene	MSD	RPD	0	%	20
OP64340-MSD2	91-20-3	Naphthalene	MSD	REC	43	%	38-111
OP64340-MSD2	91-20-3	Naphthalene	MSD	RPD	2	%	20
OP64340-MSD2	85-01-8	Phenanthrene	MSD	REC	54	%	49-113
OP64340-MSD2	85-01-8	Phenanthrene	MSD	RPD	3	%	20
OP64340-MSD2	129-00-0	Pyrene	MSD	REC	54 ^b	%	55-117
OP64340-MSD2	129-00-0	Pyrene	MSD	RPD	0	%	20
OP64340-MSD2	4165-60-0	Nitrobenzene-d5	MSD	SURR	54	%	44-125
OP64340-MSD2	321-60-8	2-Fluorobiphenyl	MSD	SURR	53	%	46-115
OP64340-MSD2	1718-51-0	Terphenyl-d14	MSD	SURR	52 ^b	%	58-133
OP64340-MB	4165-60-0	Nitrobenzene-d5	MB	SURR	50	%	44-125
OP64340-MB	321-60-8	2-Fluorobiphenyl	MB	SURR	51	%	46-115
OP64340-MB	1718-51-0	Terphenyl-d14	MB	SURR	46 ^b	%	58-133
FA42100-1	4165-60-0	Nitrobenzene-d5	SAMP	SURR	49	%	44-125
FA42100-1	321-60-8	2-Fluorobiphenyl	SAMP	SURR	51	%	46-115
FA42100-1	1718-51-0	Terphenyl-d14	SAMP	SURR	45 ^b	%	58-133

* Sample used for QC is not from job FA42100

QC Evaluation: DOD QSM5 Limits

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Job Number: FA42100
Account: Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX
Collected: 03/15/17

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FA42100-2	4165-60-0	Nitrobenzene-d5	SAMP	SURR	63	%	44-125
FA42100-2	321-60-8	2-Fluorobiphenyl	SAMP	SURR	68	%	46-115
FA42100-2	1718-51-0	Terphenyl-d14	SAMP	SURR	58 ^b	%	58-133
FA42100-3	4165-60-0	Nitrobenzene-d5	SAMP	SURR	54	%	44-125
FA42100-3	321-60-8	2-Fluorobiphenyl	SAMP	SURR	49	%	46-115
FA42100-3	1718-51-0	Terphenyl-d14	SAMP	SURR	45 ^b	%	58-133
FA42100-4	4165-60-0	Nitrobenzene-d5	SAMP	SURR	53	%	44-125
FA42100-4	321-60-8	2-Fluorobiphenyl	SAMP	SURR	52	%	46-115
FA42100-4	1718-51-0	Terphenyl-d14	SAMP	SURR	44 ^c	%	58-133
FA42100-5	4165-60-0	Nitrobenzene-d5	SAMP	SURR	54	%	44-125
FA42100-5	321-60-8	2-Fluorobiphenyl	SAMP	SURR	55	%	46-115
FA42100-5	1718-51-0	Terphenyl-d14	SAMP	SURR	50 ^b	%	58-133

(a) Spike recovery within control limits for QSM5.

(b) Outside DoD QSM control limits.

(c) Outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis beyond hold time.

* Sample used for QC is not from job FA42100

GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: FA42100**Account:** CAPEGAA Cape Environmental Management Inc.**Project:** OB/OD Site I, OB Site II, Fort Bliss, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP64340-MB	W098320.D	1	03/27/17	FS	03/26/17	OP64340	SW4367

The QC reported here applies to the following samples:**Method:** SW846 8270D BY SIM

FA42100-1, FA42100-2, FA42100-3, FA42100-4, FA42100-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	67	27	ug/kg	
208-96-8	Acenaphthylene	ND	67	27	ug/kg	
120-12-7	Anthracene	ND	67	17	ug/kg	
56-55-3	Benzo(a)anthracene	ND	13	3.3	ug/kg	
50-32-8	Benzo(a)pyrene	ND	13	3.3	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	13	3.3	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	13	3.3	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	13	3.3	ug/kg	
218-01-9	Chrysene	ND	13	3.3	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	13	3.3	ug/kg	
206-44-0	Fluoranthene	ND	67	17	ug/kg	
86-73-7	Fluorene	ND	67	27	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	13	3.3	ug/kg	
90-12-0	1-Methylnaphthalene	ND	67	27	ug/kg	
91-57-6	2-Methylnaphthalene	ND	67	27	ug/kg	
91-20-3	Naphthalene	ND	67	27	ug/kg	
85-01-8	Phenanthrene	ND	67	17	ug/kg	
129-00-0	Pyrene	ND	67	17	ug/kg	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	50% 40-105%
321-60-8	2-Fluorobiphenyl	51% 43-107%
1718-51-0	Terphenyl-d14	46% ^a 45-119%

(a) Outside DoD QSM control limits.

Blank Spike Summary

Page 1 of 1

Job Number: FA42100**Account:** CAPEGAA Cape Environmental Management Inc.**Project:** OB/OD Site I, OB Site II, Fort Bliss, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP64340-BS	W098321.D	1	03/27/17	FS	03/26/17	OP64340	SW4367

The QC reported here applies to the following samples:**Method:** SW846 8270D BY SIM

FA42100-1, FA42100-2, FA42100-3, FA42100-4, FA42100-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	667	351	53	53-100
208-96-8	Acenaphthylene	667	370	55	51-100
120-12-7	Anthracene	333	174	52* a	60-102
56-55-3	Benzo(a)anthracene	333	199	60	60-106
50-32-8	Benzo(a)pyrene	333	193	58	58-105
205-99-2	Benzo(b)fluoranthene	333	200	60	59-112
191-24-2	Benzo(g,h,i)perylene	333	185	55* a	56-109
207-08-9	Benzo(k)fluoranthene	333	209	63	58-109
218-01-9	Chrysene	333	201	60* a	62-104
53-70-3	Dibenzo(a,h)anthracene	333	168	50* a	55-110
206-44-0	Fluoranthene	667	413	62	59-109
86-73-7	Fluorene	667	399	60	56-104
193-39-5	Indeno(1,2,3-cd)pyrene	333	175	52* a	54-110
90-12-0	1-Methylnaphthalene	667	340	51	50-101
91-57-6	2-Methylnaphthalene	667	319	48* a	49-100
91-20-3	Naphthalene	667	329	49	49-101
85-01-8	Phenanthrene	667	362	54* a	57-104
129-00-0	Pyrene	667	386	58	58-106

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	62%	40-105%
321-60-8	2-Fluorobiphenyl	61%	43-107%
1718-51-0	Terphenyl-d14	54% b	45-119%

(a) Spike recovery within control limits for QSM5.

(b) Outside DoD QSM control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: FA42100

Account: CAPEGAA Cape Environmental Management Inc.

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP64340-MS2	W098335.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
OP64340-MSD2	W098336.D	1	03/27/17	FS	03/26/17	OP64340	SW4367
FA42100-4	W098334.D	1	03/27/17	FS	03/26/17	OP64340	SW4367

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

FA42100-1, FA42100-2, FA42100-3, FA42100-4, FA42100-5

CAS No.	Compound	FA42100-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	68 UJ	J	662	331	50*	658	317	48*	4	53-100/28
208-96-8	Acenaphthylene	68 UJ	J	662	340	51	658	326	50*	4	51-100/25
120-12-7	Anthracene	68 UJ	J	331	167	50*	329	166	50*	1	60-102/29
56-55-3	Benzo(a)anthracene	14 UJ	J	331	180	54*	329	194	59*	7	60-106/30
50-32-8	Benzo(a)pyrene	14 U		331	185	56*	329	190	58	3	58-105/30
205-99-2	Benzo(b)fluoranthene	5.8	J	331	203	60	329	195	58*	4	59-112/33
191-24-2	Benzo(g,h,i)perylene	14 UJ	J	331	173	52*	329	181	55*	5	56-109/31
207-08-9	Benzo(k)fluoranthene	14 U		331	192	58	329	204	62	6	58-109/33
218-01-9	Chrysene	3.8	J	331	191	57*	329	190	57*	1	62-104/30
53-70-3	Dibenzo(a,h)anthracene	14 UJ	J	331	157	47* a	329	156	47* a	1	55-110/31
206-44-0	Fluoranthene	68 U		662	397	60	658	409	62	3	59-109/29
86-73-7	Fluorene	68 UJ	J	662	378	57	658	343	52*	10	56-104/27
193-39-5	Indeno(1,2,3-cd)pyrene	14 UJ	J	331	167	50*	329	172	52*	3	54-110/32
90-12-0	1-Methylnaphthalene	68 UJ	J	662	295	45*	658	297	45*	1	50-101/30
91-57-6	2-Methylnaphthalene	68 UJ	J	662	290	44*	658	290	44*	0	49-100/26
91-20-3	Naphthalene	68 UJ	J	662	288	43*	658	281	43*	2	49-101/28
85-01-8	Phenanthrene	68 UJ	J	662	343	52*	658	353	54*	3	57-104/27
129-00-0	Pyrene	68 UJ	J	662	357	54* a	658	358	54* a	0	58-106/29

CAS No.	Surrogate Recoveries	MS	MSD	FA42100-4	Limits
4165-60-0	Nitrobenzene-d5	54%	54%	53%	40-105%
321-60-8	2-Fluorobiphenyl	55%	53%	52%	43-107%
1718-51-0	Terphenyl-d14	50% a	52% a	44%* b	45-119%

(a) Outside DoD QSM control limits.

(b) Outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis beyond hold time.

* = Outside of Control Limits.

Instrument Performance Check (DFTPP)**Job Number:** FA42100**Account:** CAPEGAA Cape Environmental Management Inc.**Project:** OB/OD Site I, OB Site II, Fort Bliss, TX**Sample:** SW4339-DFTPP**Injection Date:** 02/13/17**Lab File ID:** W097282.D**Injection Time:** 18:34**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	135535	44.8	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	120820	39.9	Pass
70	Less than 2.0% of mass 69	290	0.10 (0.24) ^a	Pass
127	40.0 - 60.0% of mass 198	140221	46.4	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	302442	100.0	Pass
199	5.0 - 9.0% of mass 198	20920	6.92	Pass
275	10.0 - 30.0% of mass 198	74467	24.6	Pass
365	1.0 - 100.0% of mass 198	5711	1.89	Pass
441	Present, but less than mass 443	25594	8.46 (82.5) ^b	Pass
442	40.0 - 100.0% of mass 198	161074	53.3	Pass
443	17.0 - 23.0% of mass 442	31036	10.3 (19.3) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW4339-IC4339	W097284.D	02/13/17	19:10	00:36	Initial cal 1
SW4339-IC4339	W097285.D	02/13/17	19:33	00:59	Initial cal 2
SW4339-IC4339	W097286.D	02/13/17	19:55	01:21	Initial cal 3
SW4339-ICC4339	W097287.D	02/13/17	20:18	01:44	Initial cal 4
SW4339-IC4339	W097288.D	02/13/17	20:41	02:07	Initial cal 5
SW4339-IC4339	W097289.D	02/13/17	21:04	02:30	Initial cal 6
SW4339-IC4339	W097290.D	02/13/17	21:27	02:53	Initial cal 7
SW4339-ICV4339	W097291.D	02/13/17	21:49	03:15	Initial cal verification 4
OP63693-MB	W097292.D	02/13/17	22:12	03:38	Method Blank
ZZZZZZ	W097293.D	02/13/17	22:35	04:01	(unrelated sample)
ZZZZZZ	W097294.D	02/13/17	22:58	04:24	(unrelated sample)
ZZZZZZ	W097295.D	02/13/17	23:20	04:46	(unrelated sample)
ZZZZZZ	W097296.D	02/13/17	23:43	05:09	(unrelated sample)
ZZZZZZ	W097297.D	02/14/17	00:06	05:32	(unrelated sample)
ZZZZZZ	W097298.D	02/14/17	00:29	05:55	(unrelated sample)
ZZZZZZ	W097299.D	02/14/17	00:51	06:17	(unrelated sample)
ZZZZZZ	W097300.D	02/14/17	01:14	06:40	(unrelated sample)
ZZZZZZ	W097301.D	02/14/17	01:37	07:03	(unrelated sample)
ZZZZZZ	W097302.D	02/14/17	01:59	07:25	(unrelated sample)

Instrument Performance Check (DFTPP)

Page 2 of 2

Job Number: FA42100

Account: CAPEGAA Cape Environmental Management Inc.

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4339-DFTPP

Injection Date: 02/13/17

Lab File ID: W097282.D

Injection Time: 18:34

Instrument ID: GCMSW

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	W097303.D	02/14/17	02:22	07:48	(unrelated sample)
ZZZZZZ	W097304.D	02/14/17	02:45	08:11	(unrelated sample)
ZZZZZZ	W097305.D	02/14/17	03:07	08:33	(unrelated sample)
ZZZZZZ	W097306.D	02/14/17	03:30	08:56	(unrelated sample)
SW4339-ECC4339	W097307.D	02/14/17	08:01	13:27	Ending cal 4

6.4.1

6

Instrument Performance Check (DFTPP)**Job Number:** FA42100**Account:** CAPEGAA Cape Environmental Management Inc.**Project:** OB/OD Site I, OB Site II, Fort Bliss, TX**Sample:** SW4367-DFTPP**Injection Date:** 03/27/17**Lab File ID:** W098311.D**Injection Time:** 09:35**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	79054	44.9	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	64403	36.5	Pass
70	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
127	40.0 - 60.0% of mass 198	77807	44.2	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	176210	100.0	Pass
199	5.0 - 9.0% of mass 198	12343	7.00	Pass
275	10.0 - 30.0% of mass 198	42866	24.3	Pass
365	1.0 - 100.0% of mass 198	5116	2.90	Pass
441	Present, but less than mass 443	15192	8.62 (80.6) ^b	Pass
442	40.0 - 100.0% of mass 198	95234	54.0	Pass
443	17.0 - 23.0% of mass 442	18843	10.7 (19.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW4367-CC4339	W098312.D	03/27/17	09:50	00:15	Continuing cal 4
OP64235-MB	W098313.D	03/27/17	10:16	00:41	Method Blank
OP64235-BS	W098314.D	03/27/17	10:39	01:04	Blank Spike
FA42139-2	W098315.D	03/27/17	11:02	01:27	(used for QC only; not part of job FA42100)
OP64235-MS	W098316.D	03/27/17	11:24	01:49	Matrix Spike
OP64235-MSD	W098317.D	03/27/17	11:47	02:12	Matrix Spike Duplicate
ZZZZZZ	W098318.D	03/27/17	12:10	02:35	(unrelated sample)
ZZZZZZ	W098319.D	03/27/17	12:33	02:58	(unrelated sample)
OP64340-MB	W098320.D	03/27/17	12:55	03:20	Method Blank
OP64340-BS	W098321.D	03/27/17	13:18	03:43	Blank Spike
ZZZZZZ	W098322.D	03/27/17	13:41	04:06	(unrelated sample)
ZZZZZZ	W098323.D	03/27/17	14:04	04:29	(unrelated sample)
ZZZZZZ	W098324.D	03/27/17	14:26	04:51	(unrelated sample)
ZZZZZZ	W098325.D	03/27/17	14:49	05:14	(unrelated sample)
FA42067-5	W098326.D	03/27/17	15:12	05:37	(used for QC only; not part of job FA42100)
OP64340-MS1	W098327.D	03/27/17	15:35	06:00	Matrix Spike
OP64340-MSD1	W098328.D	03/27/17	15:57	06:22	Matrix Spike Duplicate
ZZZZZZ	W098329.D	03/27/17	16:20	06:45	(unrelated sample)
ZZZZZZ	W098330.D	03/27/17	16:43	07:08	(unrelated sample)

Instrument Performance Check (DFTPP)

Page 2 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4367-DFTPP
Lab File ID: W098311.D
Instrument ID: GCMSW
Injection Date: 03/27/17
Injection Time: 09:35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA42100-1	W098331.D	03/27/17	17:05	07:30	OBOD1-AU01-SS-01
FA42100-3	W098333.D	03/27/17	17:51	08:16	OBOD1-AU01-SS-03
FA42100-4	W098334.D	03/27/17	18:14	08:39	OBOD1-AU02-SS-01
OP64340-MS2	W098335.D	03/27/17	18:36	09:01	Matrix Spike
OP64340-MSD2	W098336.D	03/27/17	18:59	09:24	Matrix Spike Duplicate
FA42100-5	W098337.D	03/27/17	19:22	09:47	OBOD1-AU03-SS-01
ZZZZZZ	W098338.D	03/27/17	19:44	10:09	(unrelated sample)
SW4367-ECC4339	W098339.D	03/27/17	20:07	10:32	Ending cal 4

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: FA42100**Account:** CAPEGAA Cape Environmental Management Inc.**Project:** OB/OD Site I, OB Site II, Fort Bliss, TX**Sample:** SW4370-DFTPP**Injection Date:** 03/30/17**Lab File ID:** W098416.D**Injection Time:** 08:30**Instrument ID:** GCMSW

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	112911	42.3	Pass
68	Less than 2.0% of mass 69	0	0.00 (0.00) ^a	Pass
69	Mass 69 relative abundance	98262	36.8	Pass
70	Less than 2.0% of mass 69	595	0.22 (0.61) ^a	Pass
127	40.0 - 60.0% of mass 198	122063	45.7	Pass
197	Less than 1.0% of mass 198	0	0.00	Pass
198	Base peak, 100% relative abundance	267039	100.0	Pass
199	5.0 - 9.0% of mass 198	18757	7.02	Pass
275	10.0 - 30.0% of mass 198	70312	26.3	Pass
365	1.0 - 100.0% of mass 198	7475	2.80	Pass
441	Present, but less than mass 443	24616	9.22 (75.7) ^b	Pass
442	40.0 - 100.0% of mass 198	171690	64.3	Pass
443	17.0 - 23.0% of mass 442	32528	12.2 (18.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SW4370-CC4339	W098417.D	03/30/17	10:06	01:36	Continuing cal 4
ZZZZZZ	W098418.D	03/30/17	10:28	01:58	(unrelated sample)
ZZZZZZ	W098419.D	03/30/17	10:51	02:21	(unrelated sample)
FA42100-2	W098421.D	03/30/17	11:37	03:07	OBOD1-AU01-SS-02
OP64416-MB	W098431.D	03/30/17	15:50	07:20	Method Blank
OP64416-BS	W098432.D	03/30/17	16:13	07:43	Blank Spike
FA42100-4	W098433.D	03/30/17	16:36	08:06	OBOD1-AU02-SS-01
OP64358-MB	W098435.D	03/30/17	17:23	08:53	Method Blank
OP64358-BS	W098436.D	03/30/17	17:46	09:16	Blank Spike
ZZZZZZ	W098437.D	03/30/17	18:09	09:39	(unrelated sample)
ZZZZZZ	W098438.D	03/30/17	18:32	10:02	(unrelated sample)
ZZZZZZ	W098439.D	03/30/17	18:55	10:25	(unrelated sample)
ZZZZZZ	W098440.D	03/30/17	19:18	10:48	(unrelated sample)
ZZZZZZ	W098441.D	03/30/17	19:42	11:12	(unrelated sample)
ZZZZZZ	W098442.D	03/30/17	20:05	11:35	(unrelated sample)
SW4370-ECC4339	W098443.D	03/30/17	20:28	11:58	Ending cal 4

Semivolatile Internal Standard Area Summary

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Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Check Std: SW4367-CC4339	Injection Date: 03/27/17
Lab File ID: W098312.D	Injection Time: 09:50
Instrument ID: GCMSW	Method: SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal ^a	134355	5.59	79791	7.14	127548	8.46	100499	11.27	91230	13.73
Check Std ^b	134933	5.53	72989	7.08	116047	8.40	90361	11.18	79709	13.61
Upper Limit ^c	269866	6.03	145978	7.58	232094	8.90	180722	11.68	159418	14.11
Lower Limit ^d	67467	5.03	36495	6.58	58024	7.90	45181	10.68	39855	13.11

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
OP64235-MB	108204	5.53	63530	7.08	102548	8.40	83370	11.18	67873	13.61
OP64235-BS	103928	5.53	56841	7.07	94083	8.40	73636	11.17	65868	13.61
FA42139-2	105850	5.53	59126	7.07	96987	8.40	81190	11.17	68514	13.61
OP64235-MS	101250	5.53	54114	7.07	88009	8.39	68526	11.17	62312	13.60
OP64235-MSD	93204	5.53	51528	7.08	81567	8.40	62971	11.17	58004	13.61
ZZZZZZ	103973	5.53	62287	7.07	100580	8.40	82057	11.17	70699	13.61
ZZZZZZ	108120	5.53	65725	7.08	103801	8.40	85649	11.17	76142	13.61
OP64340-MB	126525	5.53	70460	7.07	107550	8.39	85501	11.17	69797	13.60
OP64340-BS	126840	5.53	69001	7.07	106870	8.39	78155	11.17	66891	13.61
ZZZZZZ	136392	5.53	73036	7.07	110630	8.39	86391	11.17	71229	13.60
ZZZZZZ	125955	5.53	71396	7.07	107987	8.39	84578	11.17	70232	13.61
ZZZZZZ	130781	5.53	71810	7.07	109689	8.40	86184	11.17	71958	13.61
ZZZZZZ	127641	5.53	73425	7.07	104637	8.40	84466	11.17	72339	13.61
FA42067-5	136632	5.53	76362	7.07	115086	8.40	91010	11.17	76455	13.61
OP64340-MS1	96328	5.53	51867	7.07	83166	8.39	59206	11.17	49822	13.61
OP64340-MSD1	96903	5.53	51565	7.08	78864	8.40	55816	11.18	48556	13.61
ZZZZZZ	124108	5.53	68971	7.07	106552	8.40	82540	11.17	70837	13.61
ZZZZZZ	130490	5.53	72320	7.07	109965	8.39	87392	11.17	73873	13.61
FA42100-1	133240	5.53	71555	7.07	103929	8.39	84883	11.17	74108	13.61
FA42100-3	126017	5.53	74010	7.07	110454	8.40	88764	11.17	69889	13.61
FA42100-4	129539	5.53	71467	7.07	107812	8.40	87916	11.17	69255	13.60
OP64340-MS2	120032	5.53	62072	7.08	96487	8.40	75885	11.17	62471	13.61
OP64340-MSD2	125493	5.53	67133	7.08	101297	8.40	78596	11.17	66925	13.61
FA42100-5	128314	5.53	73252	7.07	108897	8.40	89397	11.17	74766	13.61
ZZZZZZ	76894	5.53	46686	7.07	78997	8.40	68239	11.17	56961	13.60
SW4367-ECC433997745		5.53	52120	7.08	85673	8.40	68820	11.17	59184	13.61

IS 1 = Naphthalene-d8
 IS 2 = Acenaphthene-D10
 IS 3 = Phenanthrene-d10
 IS 4 = Chrysene-d12
 IS 5 = Perylene-d12

Semivolatile Internal Standard Area Summary

Page 2 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Check Std: SW4367-CC4339	Injection Date: 03/27/17
Lab File ID: W098312.D	Injection Time: 09:50
Instrument ID: GCMSW	Method: SW846 8270D BY SIM

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
------------------	--------------	----	--------------	----	--------------	----	--------------	----	--------------	----

- (a) Initial Cal is: SW4339-ICC4339 W097287.D 02/13/17 20:18
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Check Std: SW4370-CC4339	Injection Date: 03/30/17
Lab File ID: W098417.D	Injection Time: 10:06
Instrument ID: GCMSW	Method: SW846 8270D BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Initial Cal ^a	134355	5.59	79791	7.14	127548	8.46	100499	11.27	91230	13.73
Check Std ^b	122300	5.53	69547	7.08	111629	8.40	82482	11.18	81257	13.62
Upper Limit ^c	244600	6.03	139094	7.58	223258	8.90	164964	11.68	162514	14.12
Lower Limit ^d	61150	5.03	34774	6.58	55815	7.90	41241	10.68	40629	13.12

Lab	IS 1		IS 2		IS 3		IS 4		IS 5	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
ZZZZZZ	81495	5.53	46433	7.08	74707	8.40	64383	11.18	57638	13.62
ZZZZZZ	74200	5.53	60117	7.08	67932	8.40	64612	11.18	56079	13.62
FA42100-2	76264	5.53	41041	7.08	62794	8.39	53520	11.18	51253	13.61
OP64416-MB	73098	5.53	39432	7.08	61987	8.40	55619	11.18	52636	13.62
OP64416-BS	74201	5.53	38619	7.07	59553	8.39	52195	11.18	52744	13.61
FA42100-4 ^e	71526	5.53	40891	7.08	63483	8.40	55241	11.18	53378	13.61
OP64358-MB	74735	5.53	39877	7.07	66026	8.40	59520	11.18	56212	13.61
OP64358-BS	81440	5.53	43118	7.08	67999	8.40	52863	11.18	51950	13.61
ZZZZZZ	73378	5.53	41090	7.07	66551	8.40	55032	11.17	49351	13.62
ZZZZZZ	72369	5.53	39237	7.08	65925	8.40	57137	11.18	50670	13.62
ZZZZZZ	74342	5.53	41715	7.08	65741	8.40	51140	11.18	51492	13.62
ZZZZZZ	75247	5.53	41267	7.08	64724	8.40	55351	11.18	48759	13.63
ZZZZZZ	82138	5.53	48592	7.08	74348	8.40	63084	11.18	56850	13.62
ZZZZZZ	81388	5.53	46222	7.08	71657	8.40	59830	11.18	51883	13.63
SW4370-ECC4339105295	5.53	59532	7.08	93914	8.40	75170	11.18	69732	13.63	

IS 1 = Naphthalene-d8
IS 2 = Acenaphthene-D10
IS 3 = Phenanthrene-d10
IS 4 = Chrysene-d12
IS 5 = Perylene-d12

- (a) Initial Cal is: SW4339-ICC4339 W097287.D 02/13/17 20:18
(b) Check Std Limit = -50 to + 100% of initial cal area.
(c) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Confirmation run.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: FA42100

Account: CAPEGAA Cape Environmental Management Inc.

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Method: SW846 8270D BY SIM

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
FA42100-1	W098331.D	49	51	45 ^a
FA42100-2	W098421.D	63	68	58 ^a
FA42100-3	W098333.D	54	49	45 ^a
FA42100-4	W098433.D	66	72	55
FA42100-4	W098334.D	53	52	44* ^b
FA42100-5	W098337.D	54	55	50 ^a
OP64340-BS	W098321.D	62	61	54 ^a
OP64340-MB	W098320.D	50	51	46 ^a
OP64340-MS2	W098335.D	54	55	50 ^a
OP64340-MSD2	W098336.D	54	53	52 ^a

Surrogate Compounds

Recovery Limits

S1 = Nitrobenzene-d5	40-105%
S2 = 2-Fluorobiphenyl	43-107%
S3 = Terphenyl-d14	45-119%

(a) Outside DoD QSM control limits.

(b) Outside control limits due to matrix interference. Confirmed by re-extraction and reanalysis beyond hold time.

Initial Calibration Summary

Page 1 of 2

Job Number: FA42100
 Account: CAPEGAA Cape Environmental Management Inc.
 Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4339-ICC4339
 Lab FileID: W097287.D

Response Factor Report MSBNA01

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Tue Feb 14 08:14:18 2017
 Response via : Initial Calibration

Calibration Files

L1 =W097284.D L2 =W097285.D L3 =W097286.D L4 =W097287.D
 L5 =W097288.D L6 =W097289.D L7 =W097290.D

Compound	L1	L2	L3	L4	L5	L6	L7	Avg	%RSD
1) I Naphthalene-d8	-----ISTD-----								
2) S Nitrobenzene-d5	0.312	0.302	0.291	0.293	0.282	0.277	0.243	0.286	7.78
3) P Naphthalene	1.183	1.094	0.963	0.982	0.927	0.867	0.776	0.970	14.00
4) P 2-Methylnaphthale	0.870	0.863	0.749	0.734	0.648	0.644	0.560	0.724	15.99
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9991									
Response Ratio = 0.00000 + 0.73819 *A + -0.01788 *A^2									
5) P 1-Methylnaphthale	0.783	0.743	0.665	0.656	0.587	0.589	0.535	0.651	13.65
6) I Acenaphthene-d10	-----ISTD-----								
7) S 2-Fluorobiphenyl	1.763	1.389	1.279	1.257	1.189	1.116	1.048	1.291	18.26
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994									
Response Ratio = 0.00000 + 1.25819 *A + -0.02133 *A^2									
8) 1,1'-Biphenyl	1.923	1.415	1.372	1.332	1.287	1.234	1.164	1.390	17.97
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 1.35063 *A + -0.01882 *A^2									
9) P Acenaphthylene	2.824	2.272	2.029	1.937	1.761	1.729	1.570	2.017	20.94
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9994									
Response Ratio = 0.00000 + 1.94331 *A + -0.03769 *A^2									
10) P Acenaphthene	1.490	1.251	1.165	1.112	0.991	0.991	0.940	1.134	16.90
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984									
Response Ratio = 0.00000 + 1.12796 *A + -0.02023 *A^2									
11) Dibenzofuran	2.111	1.823	1.684	1.521	1.423	1.318	1.260	1.591	19.03
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984									
Response Ratio = 0.00000 + 1.50991 *A + -0.02563 *A^2									
12) P Fluorene	1.807	1.578	1.473	1.349	1.190	1.207	1.108	1.387	17.91
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987									
Response Ratio = 0.00000 + 1.33192 *A + -0.02267 *A^2									
13) I Phenanthrene-d10	-----ISTD-----								
14) S 2,4,6-Tribromophe	0.080	0.074	0.071	0.076	0.077	0.071	0.067	0.074	5.86
15) P Pentachlorophenol	0.054	0.068	0.082	0.104	0.112	0.112	0.123	0.093	27.61
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9992									
Response Ratio = 0.00000 + 0.09919 *A + 0.00095 *A^2									
16) P Phenanthrene	1.450	1.217	1.128	1.109	1.036	1.026	0.954	1.132	14.48
17) P Anthracene	1.547	1.366	1.193	1.261	1.149	1.111	1.047	1.239	13.79
18) Carbazole	1.428	1.328	1.235	1.225	1.094	1.049	0.966	1.189	13.64
19) P Fluoranthene	1.770	1.561	1.363	1.296	1.169	1.136	1.097	1.342	18.41
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9988									

6.7.1
6

Initial Calibration Summary

Page 2 of 2

Job Number: FA42100

Sample: SW4339-ICC4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W097287.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

$$\text{Response Ratio} = 0.00000 + 1.25146 *A + -0.01586 *A^2$$

20) I	Chrysene-d12										
21)P	Pyrene	2.219	1.957	1.764	1.719	1.627	1.594	1.492	1.767	14.01	
22)S	Terphenyl-d14	1.011	0.901	0.814	0.824	0.745	0.772	0.723	0.827	12.07	
23)P	Benzo[a]anthracen	1.845	1.614	1.558	1.592	1.449	1.469	1.360	1.555	10.02	
24)P	Chrysene	1.567	1.406	1.398	1.374	1.330	1.347	1.247	1.381	7.08	
25) I	Perylene-d12										
26)P	Benzo[b]fluoranth	1.794	1.670	1.554	1.454	1.387	1.320	1.213	1.485	13.65	
27)P	Benzo[k]fluoranth	1.794	1.611	1.415	1.385	1.276	1.334	1.206	1.431	14.28	
28)P	Benzo[a]pyrene	1.630	1.595	1.408	1.413	1.330	1.351	1.195	1.417	10.71	
29)P	Indeno[1,2,3-cd]p	1.314	1.218	1.140	1.117	1.174	1.147	1.040	1.164	7.36	
30)P	Dibenz[a,h]anthra	1.287	1.159	1.072	1.082	1.071	1.100	1.007	1.111	8.05	
31)P	Benzo[g,h,i]peryl	1.599	1.359	1.289	1.250	1.293	1.284	1.142	1.317	10.69	

(#) = Out of Range

simpahf.m

Tue Feb 14 15:58:37 2017

Initial Calibration Verification

Page 1 of 2

Job Number: FA42100

Sample: SW4339-ICV4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W097291.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\SW4338\W097291.D Vial: 93
 Acq On : 13 Feb 2017 9:49 pm Operator: fouads
 Sample : icv4339-4 Inst : MSBNA01
 Misc : op63755,sw4339,14.9,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Tue Feb 14 08:14:18 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev (min)	R.T.
1 I	Naphthalene-d8	4.000	4.000	0.0	105	0.00	5.59
2 S	Nitrobenzene-d5		-----NA-----				
3 P	Naphthalene	10.000	8.761	12.4	91	0.00	5.61
	----- Amount	Calc.	%Drift	-----			
4 P	2-Methylnaphthalene	10.000	8.453	15.5	84	0.00	6.21
	----- Amount	Calc.	%Drift	-----			
5 P	1-Methylnaphthalene	10.000	9.108	8.9	95	-0.02	6.30
6 I	Acenaphthene-d10	4.000	4.000	0.0	97	0.00	7.14
	----- Amount	Calc.	%Drift	-----			
7 S	2-Fluorobiphenyl		-----NA-----				
8	1,1'-Biphenyl		-----NA-----				
9 P	Acenaphthylene	10.000	9.630	3.7	90	0.00	7.01
10 P	Acenaphthene	10.000	9.223	7.8	87	0.00	7.16
11	Dibenzofuran	10.000	10.202	-2.0	94	0.00	7.32
12 P	Fluorene	10.000	9.649	3.5	89	0.00	7.63
	----- Amount	Calc.	%Drift	-----			
13 I	Phenanthrene-d10	4.000	4.000	0.0	95	0.00	8.46
14 S	2,4,6-Tribromophenol		-----NA-----				
	----- Amount	Calc.	%Drift	-----			
15 P	Pentachlorophenol	20.000	17.358	13.2	66	0.00	8.29
	----- Amount	Calc.	%Drift	-----			
16 P	Phenanthrene	10.000	8.720	12.8	84	0.00	8.48
17 P	Anthracene	5.000	4.218	15.6	78	0.00	8.52
18	Carbazole	5.000	4.526	9.5	83	0.00	8.67
	----- Amount	Calc.	%Drift	-----			
19 P	Fluoranthene	10.000	9.620	3.8	85	-0.02	9.56
	----- Amount	Calc.	%Drift	-----			
20 I	Chrysene-d12	4.000	4.000	0.0	87	-0.01	11.27
21 P	Pyrene	10.000	8.904	11.0	80	0.02	9.78
22 S	Terphenyl-d14		-----NA-----				
23 P	Benzo[a]anthracene	5.000	4.638	7.2	79	0.00	11.25

Initial Calibration Verification

Page 2 of 2

Job Number: FA42100

Sample: SW4339-ICV4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W097291.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

24	P	Chrysene	5.000	4.798	4.0	84	-0.01	11.31
25	I	Perylene-d12	4.000	4.000	0.0	91	-0.01	13.72
26	P	Benzo[b]fluoranthene	5.000	4.422	11.6	82	0.00	13.02
27	P	Benzo[k]fluoranthene	5.000	4.266	14.7	80	-0.01	13.07
28	P	Benzo[a]pyrene	5.000	4.403	11.9	80	-0.02	13.61
29	P	Indeno[1,2,3-cd]pyrene	5.000	4.660	6.8	88	0.00	15.89
30	P	Dibenz[a,h]anthracene	5.000	4.372	12.6	82	-0.02	15.95
31	P	Benzo[g,h,i]perylene	5.000	4.283	14.3	82	0.00	16.33

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

W097287.D simpahf.m

Tue Feb 14 16:28:27 2017

Continuing Calibration Summary

Page 1 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4367-CC4339
Lab FileID: W098312.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\SW4367\W098312.D Vial: 2
 Acq On : 27 Mar 2017 9:50 am Operator: fouads
 Sample : cc4339-4 Inst : MSBNA01
 Misc : op64229,sw4367,15.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Thu Mar 02 08:24:54 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)	R.T.
1 I	Naphthalene-d8	1.000	1.000	0.0	100	-0.01	5.53
2 S	Nitrobenzene-d5	0.286	0.289	-1.0	99	-0.02	4.91
3 P	Naphthalene	0.970	0.831	14.3	85	0.00	5.55
	----- Amount Calc. %Drift -----						
4 P	2-Methylnaphthalene	10.000	9.183	8.2	88	-0.02	6.15
	----- AvgRF CCRF %Dev -----						
5 P	1-Methylnaphthalene	0.651	0.575	11.7	88	-0.01	6.24
6 I	Acenaphthene-d10	1.000	1.000	0.0	91	-0.01	7.08
	----- Amount Calc. %Drift -----						
7 S	2-Fluorobiphenyl	10.000	10.041	-0.4	88	-0.02	6.47
8	1,1'-Biphenyl	10.000	9.629	3.7	86	-0.02	6.56
9 P	Acenaphthylene	10.000	9.481	5.2	83	-0.02	6.95
10 P	Acenaphthene	10.000	9.388	6.1	83	-0.01	7.11
11	Dibenzofuran	10.000	9.844	1.6	86	-0.01	7.26
12 P	Fluorene	10.000	10.071	-0.7	87	-0.02	7.57
	----- AvgRF CCRF %Dev -----						
13 I	Phenanthrene-d10	1.000	1.000	0.0	91	-0.02	8.40
14 S	2,4,6-Tribromophenol	0.074	0.072	2.7	86	-0.01	7.79
	----- Amount Calc. %Drift -----						
15 P	Pentachlorophenol	25.000	23.467	6.1	86	-0.02	8.23
	----- AvgRF CCRF %Dev -----						
16 P	Phenanthrene	1.132	0.996	12.0	82	-0.01	8.42
17 P	Anthracene	1.239	1.109	10.5	80	-0.01	8.46
18	Carbazole	1.189	1.130	5.0	84	-0.01	8.61
	----- Amount Calc. %Drift -----						
19 P	Fluoranthene	10.000	10.181	-1.8	87	-0.02	9.49
	----- AvgRF CCRF %Dev -----						
20 I	Chrysene-d12	1.000	1.000	0.0	90	-0.02	11.18
21 P	Pyrene	1.767	1.622	8.2	85	-0.01	9.71
22 S	Terphenyl-d14	0.827	0.721	12.8	79	-0.01	9.87
23 P	Benzo[a]anthracene	1.555	1.422	8.6	80	-0.02	11.16

Continuing Calibration Summary

Page 2 of 2

Job Number: FA42100

Sample: SW4367-CC4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W098312.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

24	P	Chrysene	1.381	1.355	1.9	89	-0.02	11.21
25	I	Perylene-d12	1.000	1.000	0.0	87	-0.01	13.61
26	P	Benzo[b]fluoranthene	1.485	1.343	9.6	81	-0.01	12.91
27	P	Benzo[k]fluoranthene	1.431	1.386	3.1	87	-0.01	12.96
28	P	Benzo[a]pyrene	1.417	1.340	5.4	83	-0.01	13.50
29	P	Indeno[1,2,3-cd]pyrene	1.164	1.038	10.8	81	0.00	15.78
30	P	Dibenz[a,h]anthracene	1.111	0.984	11.4	79	0.00	15.84
31	P	Benzo[g,h,i]perylene	1.317	1.260	4.3	88	0.00	16.23

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

W097287.D simpahf.m

Tue Mar 28 14:47:31 2017

Continuing Calibration Summary

Page 1 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4367-ECC4339
Lab FileID: W098339.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\SW4367\W098339.D Vial: 2
 Acq On : 27 Mar 2017 8:07 pm Operator: fouads
 Sample : ecc4339-4 Inst : MSBNA01
 Misc : op64311,sw4367,14.5,,,1,10,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Thu Mar 02 08:24:54 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)	R.T.
1 I	Naphthalene-d8	1.000	1.000	0.0	73	-0.01	5.53
2 S	Nitrobenzene-d5	0.286	0.287	-0.3	71	-0.02	4.92
3 P	Naphthalene	0.970	0.844	13.0	63	0.00	5.55
	----- Amount	Calc.	%Drift	-----			
4 P	2-Methylnaphthalene	10.000	8.695	13.0	60	-0.01	6.15
	----- AvgRF	CCRF	%Dev	-----			
5 P	1-Methylnaphthalene	0.651	0.548	15.8	61	-0.01	6.24
6 I	Acenaphthene-d10	1.000	1.000	0.0	65	-0.01	7.08
	----- Amount	Calc.	%Drift	-----			
7 S	2-Fluorobiphenyl	10.000	9.719	2.8	61	-0.02	6.47
8	1,1'-Biphenyl	10.000	9.168	8.3	59	-0.03	6.56
9 P	Acenaphthylene	10.000	9.616	3.8	60	-0.02	6.95
10 P	Acenaphthene	10.000	9.381	6.2	60	-0.01	7.11
11	Dibenzofuran	10.000	9.654	3.5	60	-0.02	7.26
12 P	Fluorene	10.000	9.881	1.2	61	-0.02	7.56
	----- AvgRF	CCRF	%Dev	-----			
13 I	Phenanthrene-d10	1.000	1.000	0.0	67	-0.02	8.40
14 S	2,4,6-Tribromophenol	0.074	0.072	2.7	64	-0.02	7.78
	----- Amount	Calc.	%Drift	-----			
15 P	Pentachlorophenol	25.000	25.806	-3.2	71	-0.02	8.23
	----- AvgRF	CCRF	%Dev	-----			
16 P	Phenanthrene	1.132	0.990	12.5	60	-0.02	8.42
17 P	Anthracene	1.239	1.105	10.8	59	-0.01	8.47
18	Carbazole	1.189	1.049	11.8	57	0.00	8.61
	----- Amount	Calc.	%Drift	-----			
19 P	Fluoranthene	10.000	10.217	-2.2	64	-0.02	9.49
	----- AvgRF	CCRF	%Dev	-----			
20 I	Chrysene-d12	1.000	1.000	0.0	68	-0.03	11.17
21 P	Pyrene	1.767	1.556	11.9	62	-0.01	9.71
22 S	Terphenyl-d14	0.827	0.707	14.5	59	-0.01	9.87
23 P	Benzo[a]anthracene	1.555	1.437	7.6	62	-0.03	11.16

Continuing Calibration Summary

Page 2 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4367-ECC4339
Lab FileID: W098339.D

24	P	Chrysene	1.381	1.294	6.3	64	-0.03	11.21
25	I	Perylene-d12	1.000	1.000	0.0	65	-0.02	13.61
26	P	Benzo[b]fluoranthene	1.485	1.453	2.2	65	-0.02	12.91
27	P	Benzo[k]fluoranthene	1.431	1.462	-2.2	68	-0.02	12.96
28	P	Benzo[a]pyrene	1.417	1.439	-1.6	66	-0.02	13.50
29	P	Indeno[1,2,3-cd]pyrene	1.164	1.049	9.9	61	-0.01	15.77
30	P	Dibenz[a,h]anthracene	1.111	0.955	14.0	57	-0.02	15.83
31	P	Benzo[g,h,i]perylene	1.317	1.279	2.9	66	0.00	16.22

(#) = Out of Range
W097287.D simpahf.m

SPCC's out = 0 CCC's out = 0
Tue Mar 28 14:47:11 2017

Continuing Calibration Summary

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4370-CC4339
Lab FileID: W098417.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\SW4370\W098417.D Vial: 2
 Acq On : 30 Mar 2017 10:06 am Operator: fouads
 Sample : cc4339-4 Inst : MSBNA01
 Misc : op64229,sw4370,15.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Thu Mar 02 08:24:54 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)	R.T.
1 I	Naphthalene-d8	1.000	1.000	0.0	91	-0.01	5.53
2 S	Nitrobenzene-d5	0.286	0.236	17.5	73	-0.01	4.92
3 P	Naphthalene	0.970	0.815	16.0	76	0.00	5.55
	----- Amount	Calc.	%Drift	-----			
4 P	2-Methylnaphthalene	10.000	8.655	13.5	75	-0.02	6.15
	----- AvgRF	CCRF	%Dev	-----			
5 P	1-Methylnaphthalene	0.651	0.556	14.6	77	0.00	6.24
6 I	Acenaphthene-d10	1.000	1.000	0.0	87	-0.01	7.08
	----- Amount	Calc.	%Drift	-----			
7 S	2-Fluorobiphenyl	10.000	9.052	9.5	76	-0.02	6.47
8	1,1'-Biphenyl	10.000	8.717	12.8	75	-0.02	6.56
9 P	Acenaphthylene	10.000	8.812	11.9	74	-0.01	6.96
10 P	Acenaphthene	10.000	9.323	6.8	79	-0.01	7.11
11	Dibenzofuran	10.000	9.484	5.2	79	-0.02	7.26
12 P	Fluorene	10.000	10.124	-1.2	83	-0.02	7.56
	----- AvgRF	CCRF	%Dev	-----			
13 I	Phenanthrene-d10	1.000	1.000	0.0	88	-0.01	8.40
14 S	2,4,6-Tribromophenol	0.074	0.072	2.7	83	-0.01	7.79
	----- Amount	Calc.	%Drift	-----			
15 P	Pentachlorophenol	25.000	26.274	-5.1	94	-0.02	8.24
	----- AvgRF	CCRF	%Dev	-----			
16 P	Phenanthrene	1.132	0.979	13.5	77	-0.02	8.42
17 P	Anthracene	1.239	1.111	10.3	77	-0.01	8.47
18	Carbazole	1.189	1.057	11.1	76	0.00	8.61
	----- Amount	Calc.	%Drift	-----			
19 P	Fluoranthene	10.000	10.066	-0.7	82	-0.02	9.49
	----- AvgRF	CCRF	%Dev	-----			
20 I	Chrysene-d12	1.000	1.000	0.0	82	-0.01	11.18
21 P	Pyrene	1.767	1.638	7.3	78	0.00	9.72
22 S	Terphenyl-d14	0.827	0.755	8.7	75	-0.01	9.87
23 P	Benzo[a]anthracene	1.555	1.465	5.8	76	-0.01	11.17

Continuing Calibration Summary

Page 2 of 2

Job Number: FA42100

Sample: SW4370-CC4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W098417.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

24	P	Chrysene	1.381	1.342	2.8	80	-0.01	11.22
25	I	Perylene-d12	1.000	1.000	0.0	89	0.00	13.62
26	P	Benzo[b]fluoranthene	1.485	1.321	11.0	81	0.00	12.92
27	P	Benzo[k]fluoranthene	1.431	1.257	12.2	81	0.00	12.97
28	P	Benzo[a]pyrene	1.417	1.331	6.1	84	0.00	13.51
29	P	Indeno[1,2,3-cd]pyrene	1.164	1.024	12.0	82	0.01	15.80
30	P	Dibenz[a,h]anthracene	1.111	0.904	18.6	74	0.00	15.85
31	P	Benzo[g,h,i]perylene	1.317	1.097	16.7	78	0.02	16.24

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

W097287.D simpahf.m

Thu Mar 30 16:24:19 2017

Continuing Calibration Summary

Page 1 of 2

Job Number: FA42100
Account: CAPEGAA Cape Environmental Management Inc.
Project: OB/OD Site I, OB Site II, Fort Bliss, TX

Sample: SW4370-ECC4339
Lab FileID: W098443.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\SW4370\W098443.D Vial: 2
 Acq On : 30 Mar 2017 8:28 pm Operator: fouads
 Sample : ecc4339-4 Inst : MSBNA01
 Misc : op64358,sw4370,15.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\simpahf.m (RTE Integrator)
 Title : PAH's by 8270 SIM
 Last Update : Thu Mar 02 08:24:54 2017
 Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev (min)	R.T.
1 I	Naphthalene-d8	1.000	1.000	0.0	78	0.00	5.53
2 S	Nitrobenzene-d5	0.286	0.268	6.3	72	-0.02	4.91
3 P	Naphthalene	0.970	0.843	13.1	67	0.00	5.55
----- Amount Calc. %Drift -----							
4 P	2-Methylnaphthalene	10.000	9.438	5.6	70	-0.01	6.15
----- AvgRF CCRF %Dev -----							
5 P	1-Methylnaphthalene	0.651	0.566	13.1	68	-0.01	6.24
6 I	Acenaphthene-d10	1.000	1.000	0.0	75	-0.01	7.08
----- Amount Calc. %Drift -----							
7 S	2-Fluorobiphenyl	10.000	9.300	7.0	67	-0.02	6.47
8	1,1'-Biphenyl	10.000	9.368	6.3	69	-0.02	6.56
9 P	Acenaphthylene	10.000	9.375	6.3	67	-0.01	6.95
10 P	Acenaphthene	10.000	9.339	6.6	68	-0.01	7.11
11	Dibenzofuran	10.000	9.714	2.9	69	0.00	7.27
12 P	Fluorene	10.000	9.690	3.1	68	-0.01	7.57
----- AvgRF CCRF %Dev -----							
13 I	Phenanthrene-d10	1.000	1.000	0.0	74	-0.01	8.40
14 S	2,4,6-Tribromophenol	0.074	0.073	1.4	71	-0.01	7.79
----- Amount Calc. %Drift -----							
15 P	Pentachlorophenol	25.000	24.827	0.7	74	-0.01	8.24
----- AvgRF CCRF %Dev -----							
16 P	Phenanthrene	1.132	0.997	11.9	66	-0.01	8.42
17 P	Anthracene	1.239	1.075	13.2	63	0.00	8.47
18	Carbazole	1.189	1.076	9.5	65	0.00	8.61
----- Amount Calc. %Drift -----							
19 P	Fluoranthene	10.000	9.792	2.1	67	-0.02	9.49
----- AvgRF CCRF %Dev -----							
20 I	Chrysene-d12	1.000	1.000	0.0	75	-0.01	11.18
21 P	Pyrene	1.767	1.535	13.1	67	0.00	9.72
22 S	Terphenyl-d14	0.827	0.740	10.5	67	0.00	9.88
23 P	Benzo[a]anthracene	1.555	1.421	8.6	67	-0.01	11.17

Continuing Calibration Summary

Page 2 of 2

Job Number: FA42100

Sample: SW4370-ECC4339

Account: CAPEGAA Cape Environmental Management Inc.

Lab FileID: W098443.D

Project: OB/OD Site I, OB Site II, Fort Bliss, TX

24	P	Chrysene	1.381	1.282	7.2	70	-0.01	11.22
25	I	Perylene-d12	1.000	1.000	0.0	76	0.00	13.63
26	P	Benzo[b]fluoranthene	1.485	1.382	6.9	73	0.00	12.93
27	P	Benzo[k]fluoranthene	1.431	1.308	8.6	72	0.00	12.98
28	P	Benzo[a]pyrene	1.417	1.306	7.8	71	0.00	13.52
29	P	Indeno[1,2,3-cd]pyrene	1.164	0.963	17.3	66	0.01	15.80
30	P	Dibenz[a,h]anthracene	1.111	0.931	16.2	66	0.00	15.85
31	P	Benzo[g,h,i]perylene	1.317	1.031	21.7	63	0.02	16.25

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

W097287.D simpahf.m

Fri Mar 31 10:46:45 2017

GC/MS Semi-volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098331.D
 Acq On : 27 Mar 2017 5:05 pm
 Operator : fouads
 Sample : fa42100-1 Inst : MSBNA01
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 21 Sample Multiplier: 1

Quant Time: Mar 28 10:55:44 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	133240	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	71555	4.00	ppm	-0.02
13) Phenanthrene-d10	8.394	188	103929	4.00	ppm	-0.02
20) Chrysene-d12	11.173	240	84883	4.00	ppm	-0.02
25) Perylene-d12	13.607	264	74108	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	46373	4.87	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	48.70%		
7) 2-Fluorobiphenyl	6.473	172	112236	5.10	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	51.00%		
14) 2,4,6-Tribromophenol	7.780	330	20622	10.75	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	53.75%		
22) Terphenyl-d14	9.870	244	79743	4.54	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	45.40%		
Target Compounds						
16) Phenanthrene	8.419	178	1716	0.06	ppm	94
19) Fluoranthene	9.491	202	5754	0.18	ppm	93
21) Pyrene	9.713	202	4989	0.13	ppm	93
23) Benzo[a]anthracene	11.159	228	1666	0.05	ppm	97
24) Chrysene	11.213	228	2411	0.08	ppm	94
26) Benzo[b]fluoranthene	12.913	252	3402	0.12	ppm	95
27) Benzo[k]fluoranthene	12.957	252	1183	0.04	ppm	89
28) Benzo[a]pyrene	13.499	252	1806	0.07	ppm	85
29) Indeno[1,2,3-cd]pyrene	15.786	276	1298	0.06	ppm	76
31) Benzo[g,h,i]perylene	16.229	276	1502	0.06	ppm	87

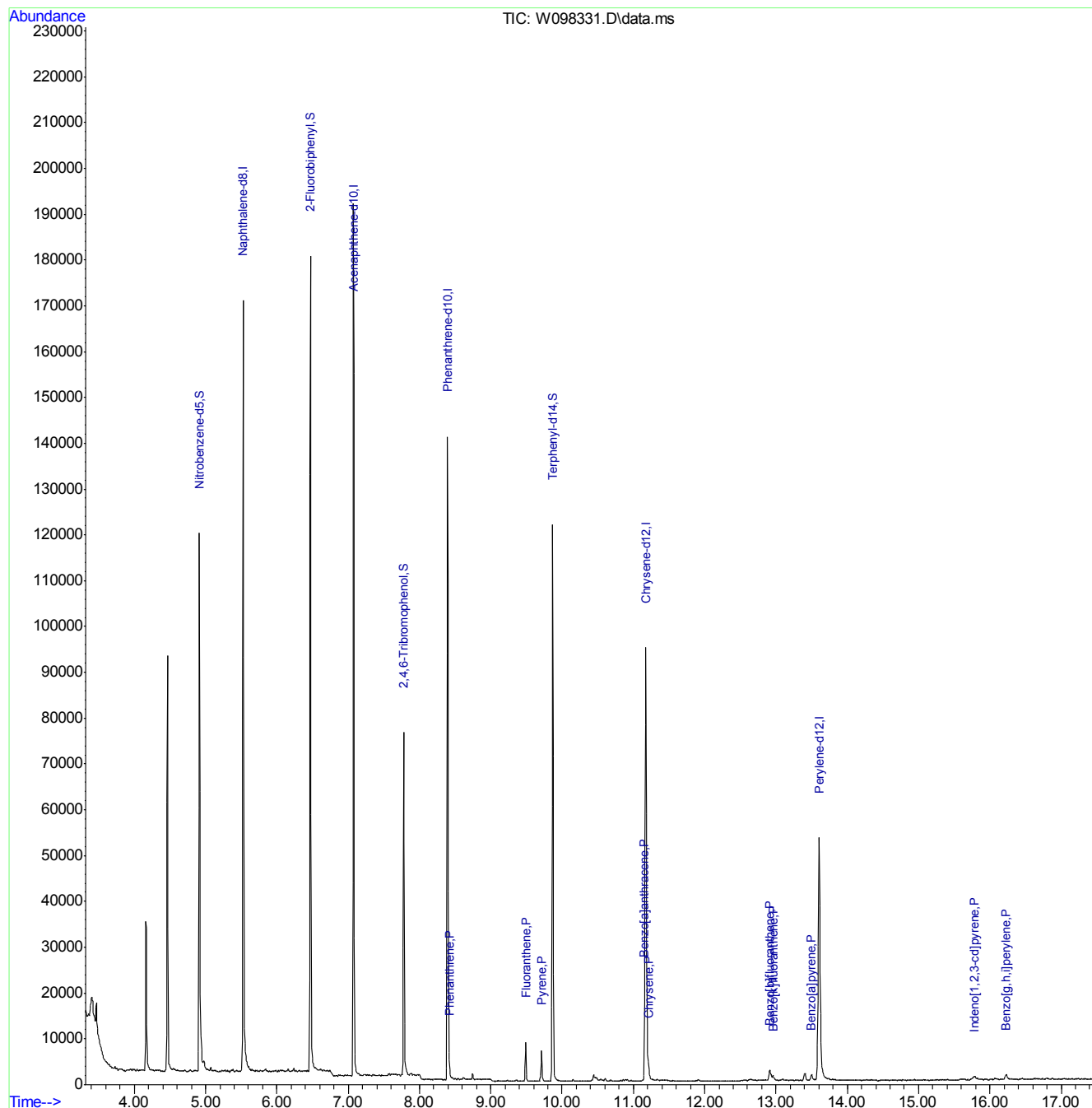
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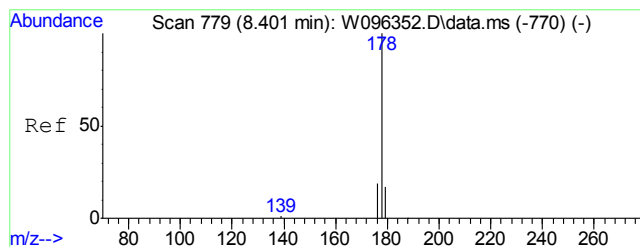
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098331.D
 Acq On : 27 Mar 2017 5:05 pm
 Operator : fouads
 Sample : fa42100-1
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 21 Sample Multiplier: 1

Inst : MSBNA01

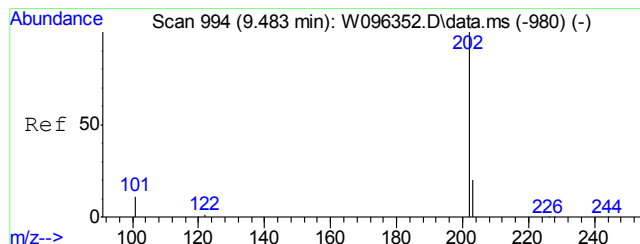
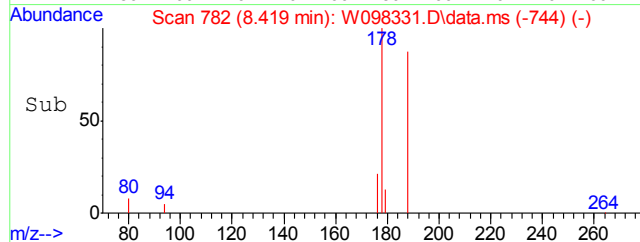
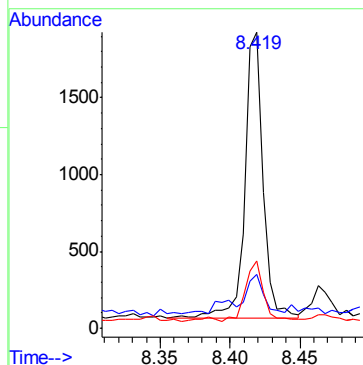
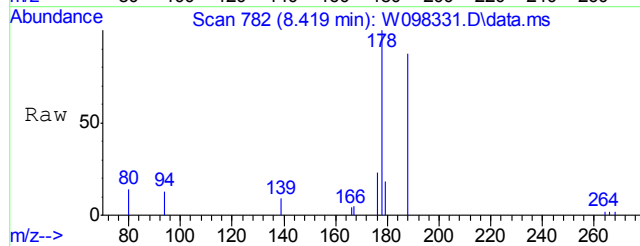
Quant Time: Mar 28 10:55:44 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration





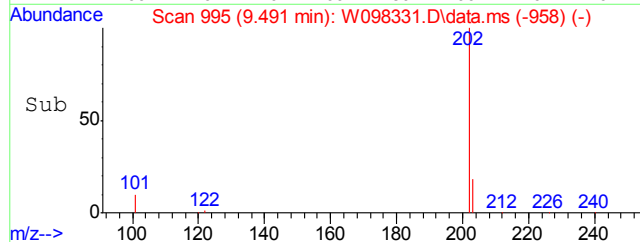
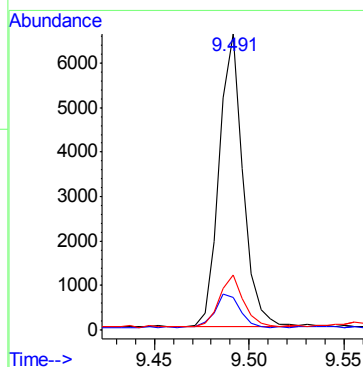
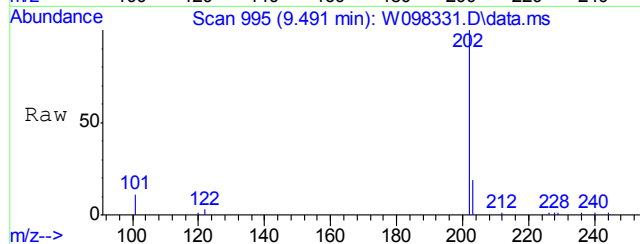
#16
Phenanthrene
Concen: 0.06 ppm
RT: 8.419 min Scan# 782
Delta R.T. -0.015 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

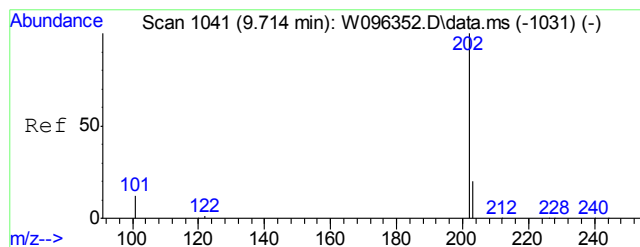
Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.4	0.0	47.5
176	20.8	0.0	49.1



#19
Fluoranthene
Concen: 0.18 ppm
RT: 9.491 min Scan# 995
Delta R.T. -0.018 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

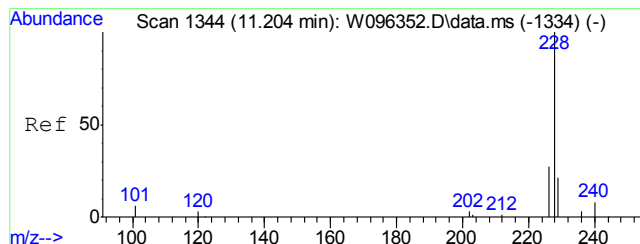
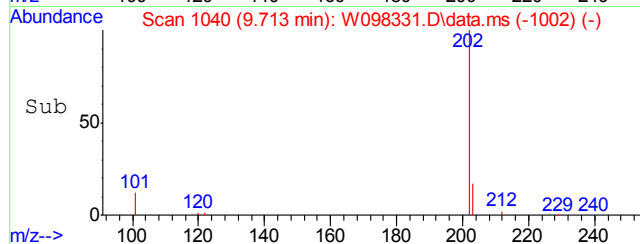
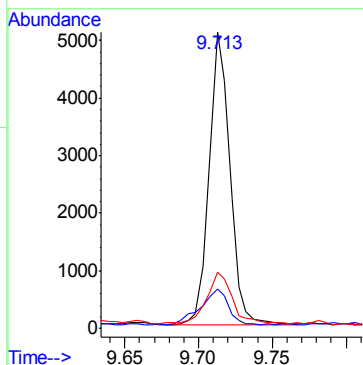
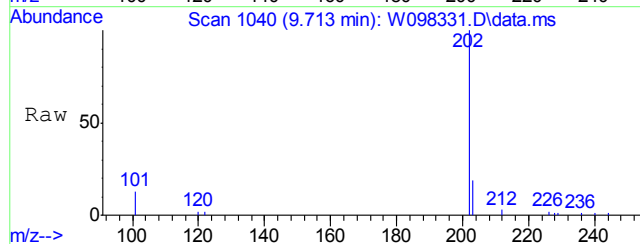
Tgt Ion	Ratio	Lower	Upper
202	100		
101	9.9	0.0	43.2
203	17.7	0.0	50.3





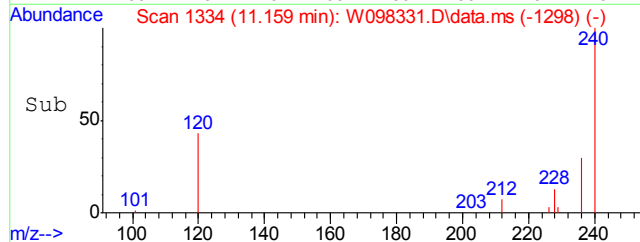
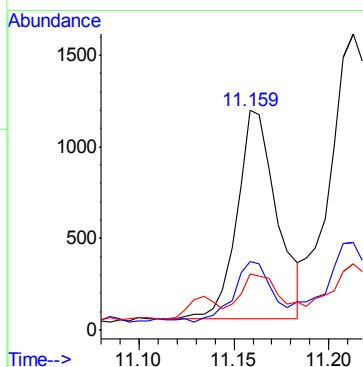
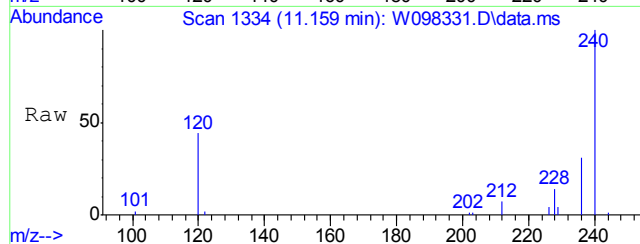
#21
 Pyrene
 Concen: 0.13 ppm
 RT: 9.713 min Scan# 1040
 Delta R.T. -0.014 min
 Lab File: W098331.D
 Acq: 27 Mar 17 5:05 pm

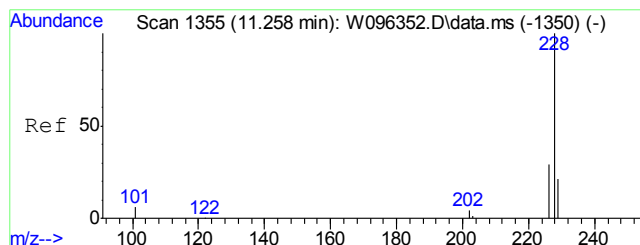
Tgt Ion:	202	Resp:	4989
Ion	Ratio	Lower	Upper
202	100		
101	12.4	0.0	45.4
203	17.3	0.0	50.4



#23
 Benzo[a]anthracene
 Concen: 0.05 ppm
 RT: 11.159 min Scan# 1334
 Delta R.T. -0.025 min
 Lab File: W098331.D
 Acq: 27 Mar 17 5:05 pm

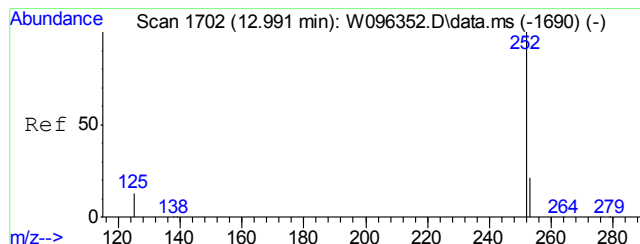
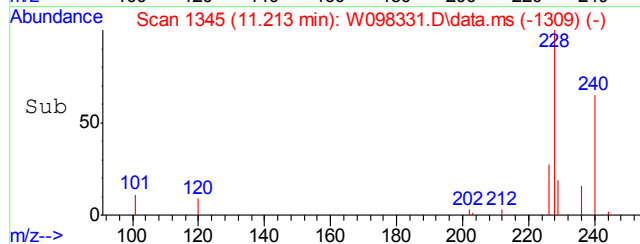
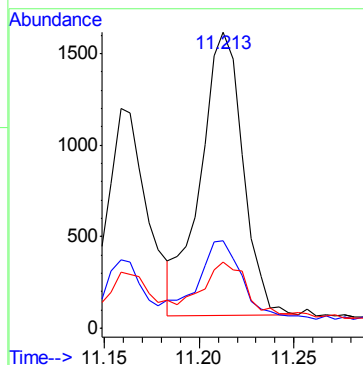
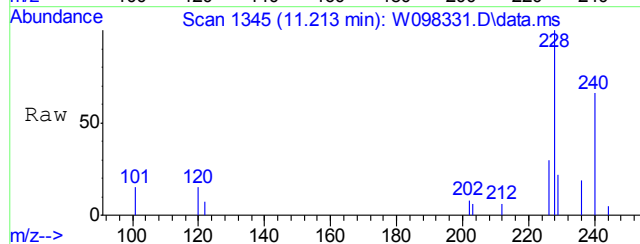
Tgt Ion:	228	Resp:	1666
Ion	Ratio	Lower	Upper
228	100		
226	27.5	0.0	56.0
229	20.3	0.0	51.7





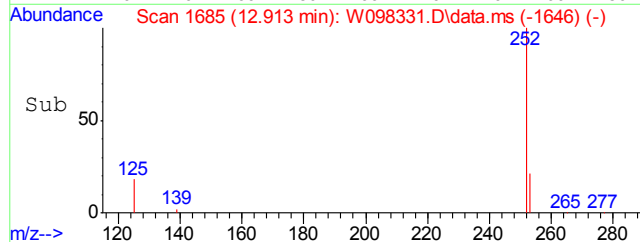
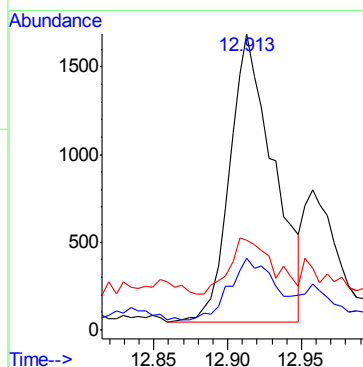
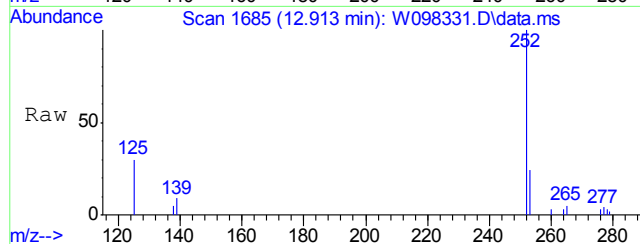
#24
Chrysene
Concen: 0.08 ppm
RT: 11.213 min Scan# 1345
Delta R.T. -0.025 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

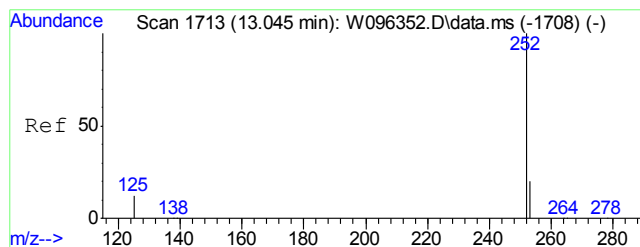
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.7	0.0	58.8
229	17.1	0.0	51.2



#26
Benzo[b]fluoranthene
Concen: 0.12 ppm
RT: 12.913 min Scan# 1685
Delta R.T. -0.010 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

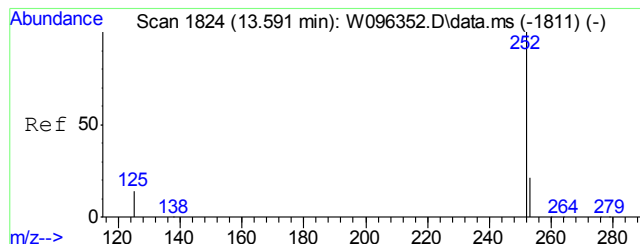
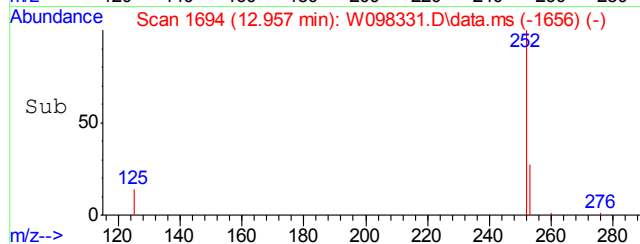
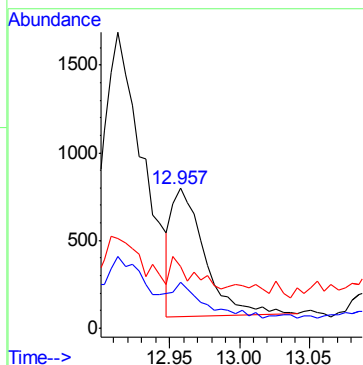
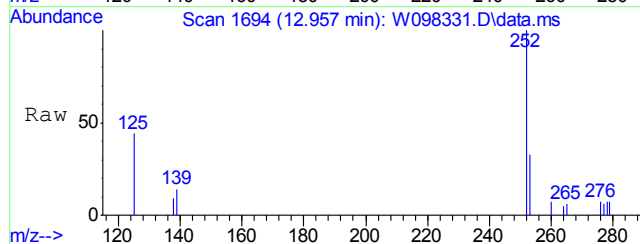
Tgt Ion	Ratio	Lower	Upper
252	100		
253	20.1	0.0	53.3
125	18.2	0.0	46.8





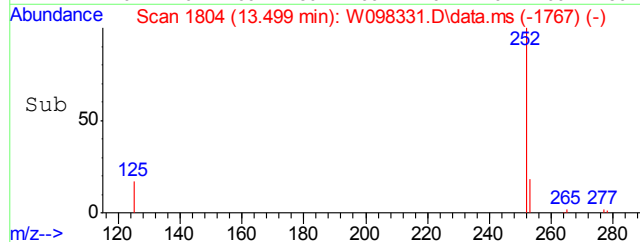
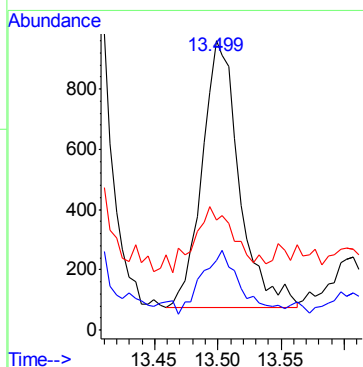
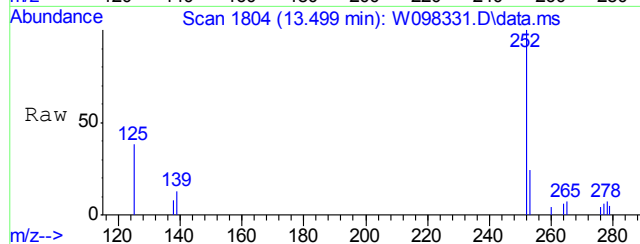
#27
Benzo[k]fluoranthene
Concen: 0.04 ppm
RT: 12.957 min Scan# 1694
Delta R.T. -0.015 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

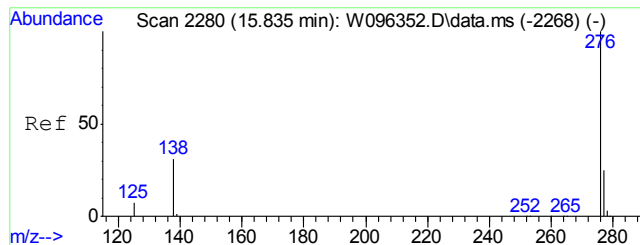
Tgt Ion	Ratio	Lower	Upper
252	100		
253	27.2	0.0	53.2
125	23.5	0.0	47.1



#28
Benzo[a]pyrene
Concen: 0.07 ppm
RT: 13.499 min Scan# 1804
Delta R.T. -0.020 min
Lab File: W098331.D
Acq: 27 Mar 17 5:05 pm

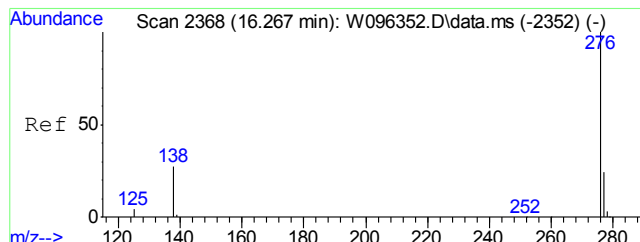
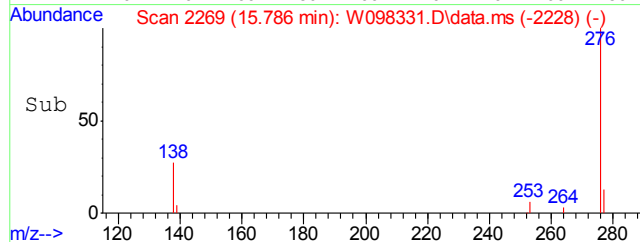
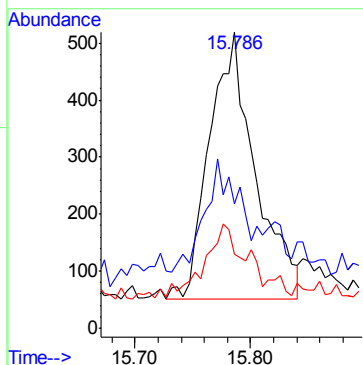
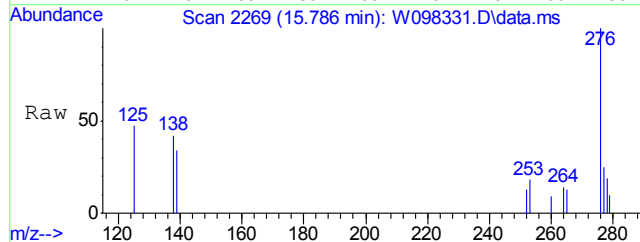
Tgt Ion	Ratio	Lower	Upper
252	100		
253	15.6	0.0	53.3
125	11.4	0.0	47.6





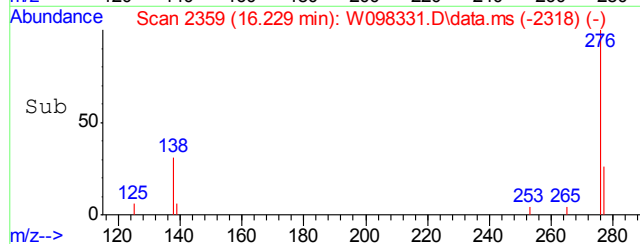
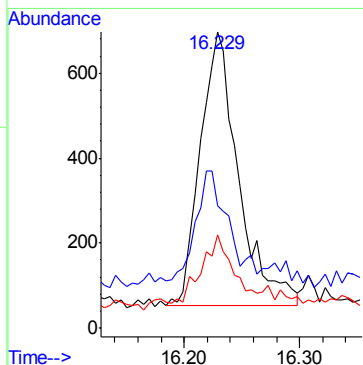
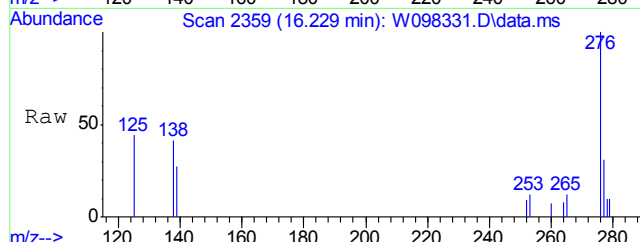
#29
 Indeno[1,2,3-cd]pyrene
 Concen: 0.06 ppm
 RT: 15.786 min Scan# 2269
 Delta R.T. 0.001 min
 Lab File: W098331.D
 Acq: 27 Mar 17 5:05 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.9	6.4	66.4
277	14.6	0.0	54.9



#31
 Benzo[g,h,i]perylene
 Concen: 0.06 ppm
 RT: 16.229 min Scan# 2359
 Delta R.T. 0.003 min
 Lab File: W098331.D
 Acq: 27 Mar 17 5:05 pm

Tgt Ion	Ratio	Lower	Upper
276	100		
138	26.2	7.9	67.9
277	24.0	0.0	55.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
 Data File : W098421.D
 Acq On : 30 Mar 2017 11:37 am
 Operator : fouads
 Sample : fa42100-2 Inst : MSBNA01
 Misc : op64340,sw4370,15.2,,,1,1,soil
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 30 13:48:36 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.527	136	76264	4.00	ppm	-0.01
6) Acenaphthene-d10	7.080	164	41041	4.00	ppm	-0.01
13) Phenanthrene-d10	8.395	188	62794	4.00	ppm	-0.02
20) Chrysene-d12	11.178	240	53520	4.00	ppm	-0.02
25) Perylene-d12	13.612	264	51253	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.914	82	34106	6.26	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	62.60%		
7) 2-Fluorobiphenyl	6.472	172	85406	6.81	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	68.10%		
14) 2,4,6-Tribromophenol	7.786	330	16076	13.87	ppm	-0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	69.35%		
22) Terphenyl-d14	9.870	244	63850	5.77	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	57.70%		
Target Compounds						
19) Fluoranthene	9.491	202	3193	0.16	ppm	91
21) Pyrene	9.718	202	2754	0.12	ppm	85
23) Benzo[a]anthracene	11.164	228	977	0.05	ppm	80
24) Chrysene	11.218	228	1778	0.10	ppm	98
26) Benzo[b]fluoranthene	12.923	252	2840	0.15	ppm	95
27) Benzo[k]fluoranthene	12.968	252	892	0.05	ppm	98
28) Benzo[a]pyrene	13.509	252	1395	0.08	ppm	93
29) Indeno[1,2,3-cd]pyrene	15.786	276	1245	0.08	ppm	86
31) Benzo[g,h,i]perylene	16.239	276	1378	0.08	ppm	85

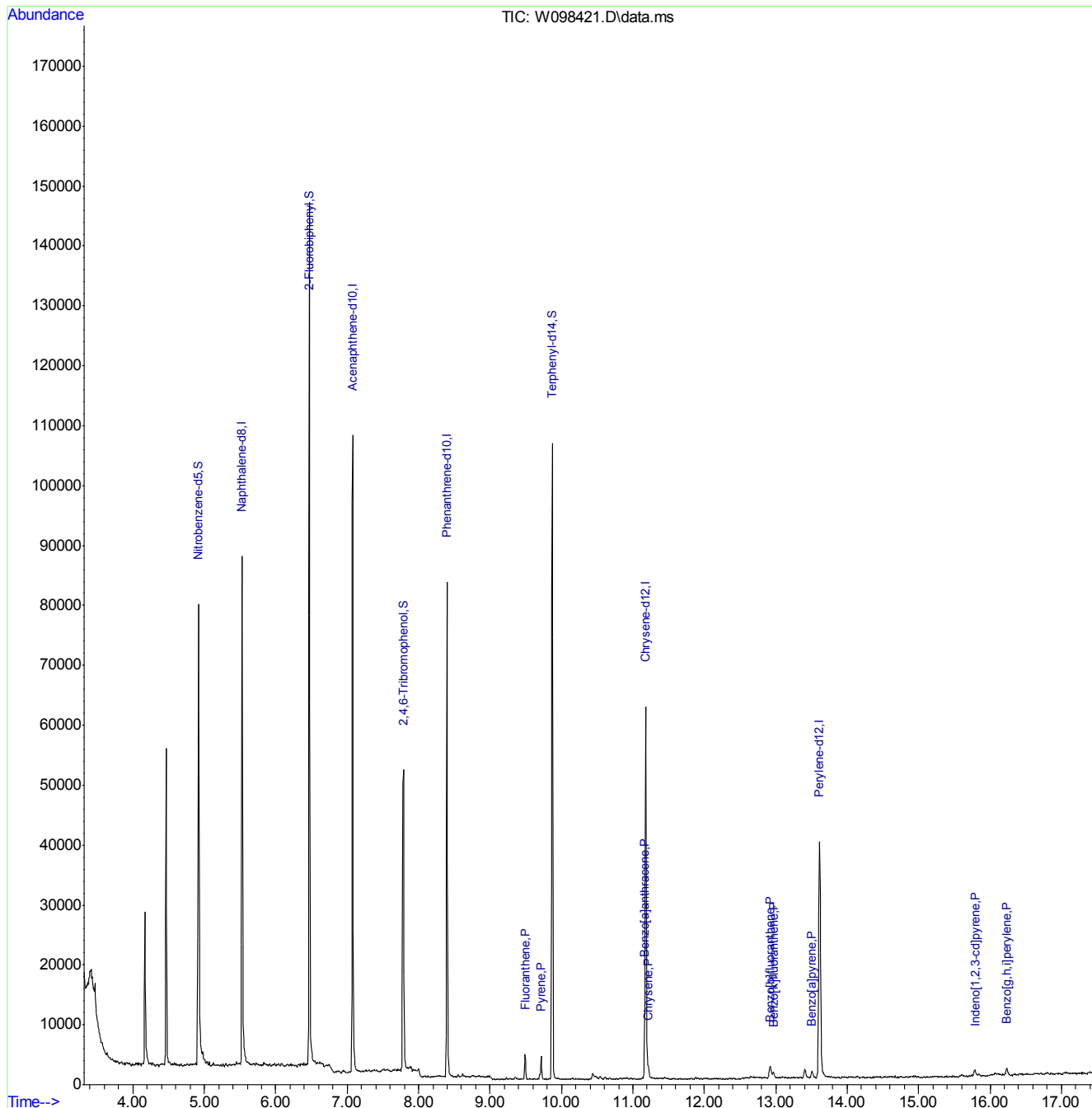
(#) = qualifier out of range (m) = manual integration (+) = signals summed

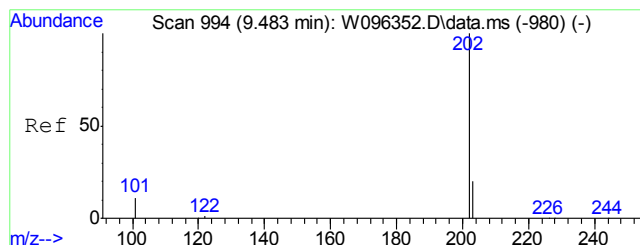
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
 Data File : W098421.D
 Acq On : 30 Mar 2017 11:37 am
 Operator : fouads
 Sample : fa42100-2
 Misc : op64340,sw4370,15.2,,,1,1,soil
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSBNA01

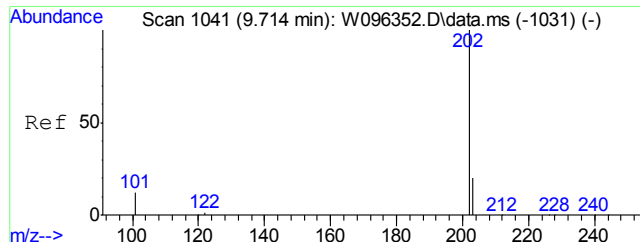
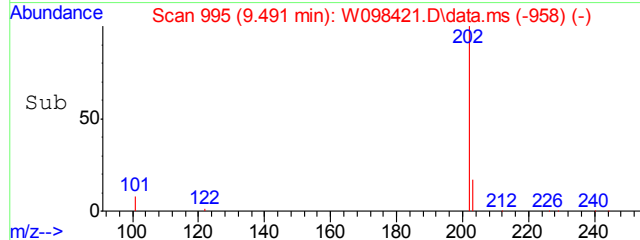
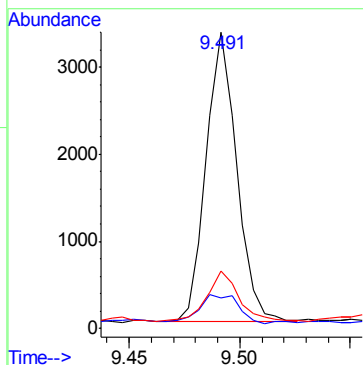
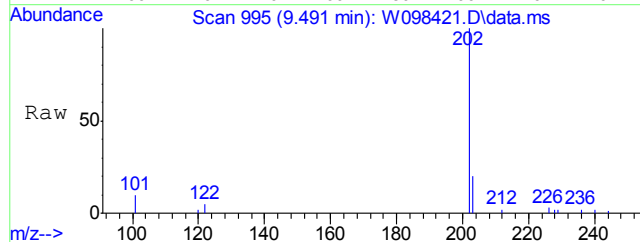
Quant Time: Mar 30 13:48:36 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration





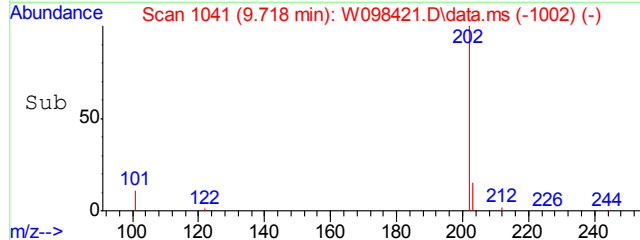
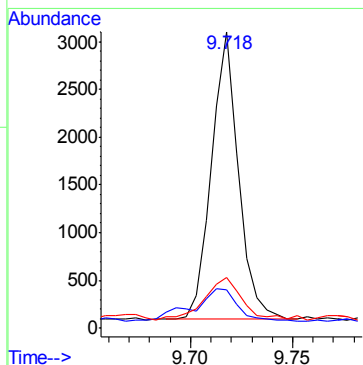
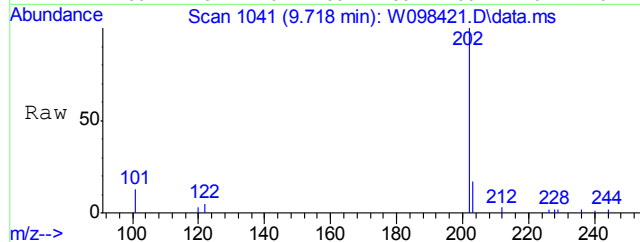
#19
Fluoranthene
Concen: 0.16 ppm
RT: 9.491 min Scan# 995
Delta R.T. -0.018 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

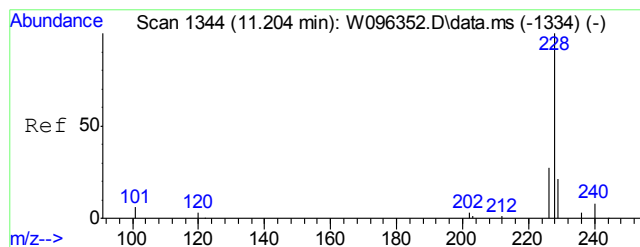
Tgt Ion:	202	Resp:	3193
Ion Ratio	Lower	Upper	
202	100		
101	8.2	0.0	43.2
203	17.3	0.0	50.3



#21
Pyrene
Concen: 0.12 ppm
RT: 9.718 min Scan# 1041
Delta R.T. -0.009 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

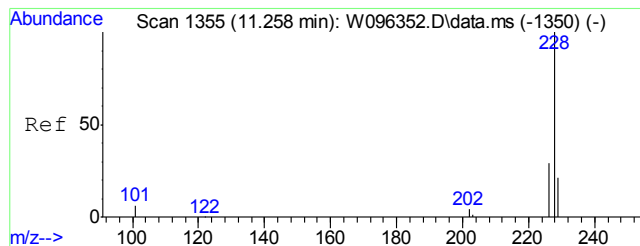
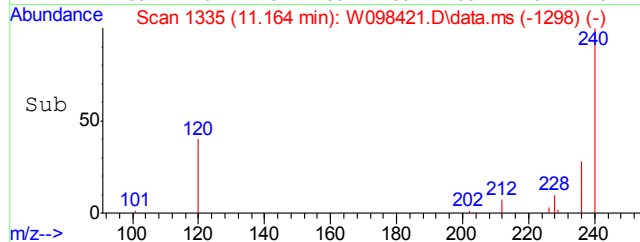
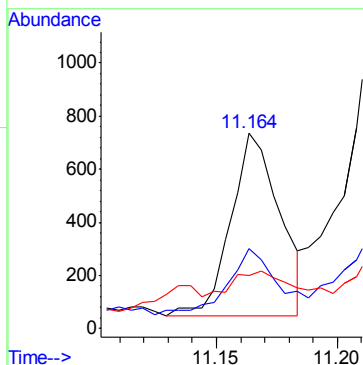
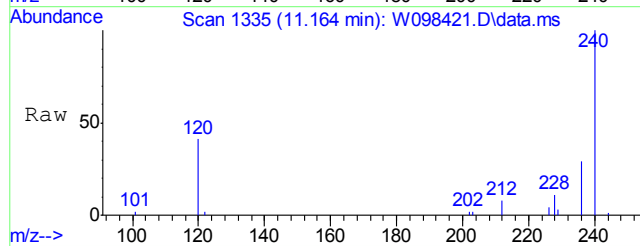
Tgt Ion:	202	Resp:	2754
Ion Ratio	Lower	Upper	
202	100		
101	9.3	0.0	45.4
203	13.5	0.0	50.4





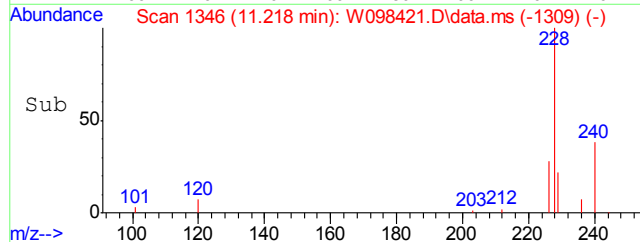
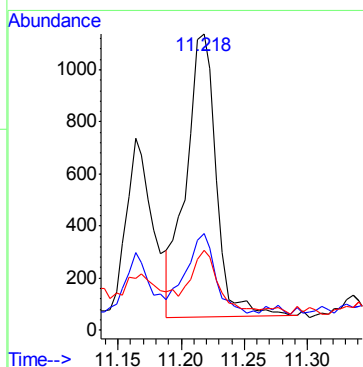
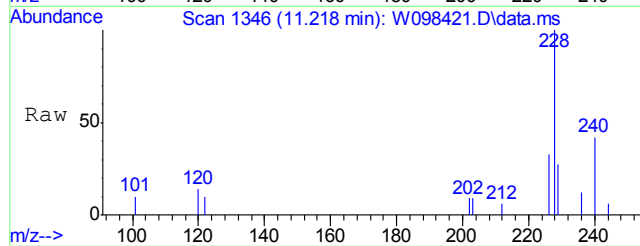
#23
Benzo[a]anthracene
Concen: 0.05 ppm
RT: 11.164 min Scan# 1335
Delta R.T. -0.020 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

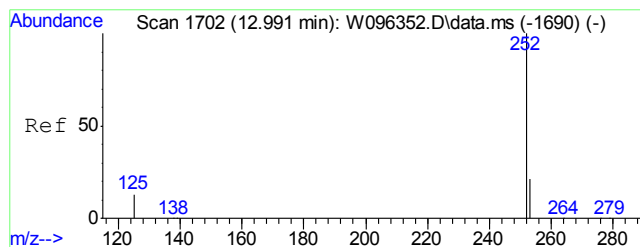
Tgt Ion	Ratio	Lower	Upper
228	100		
226	34.7	0.0	56.0
229	10.4	0.0	51.7



#24
Chrysene
Concen: 0.10 ppm
RT: 11.218 min Scan# 1346
Delta R.T. -0.020 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

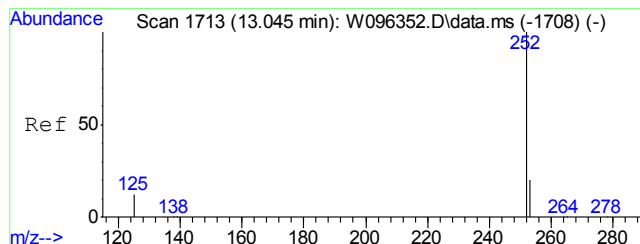
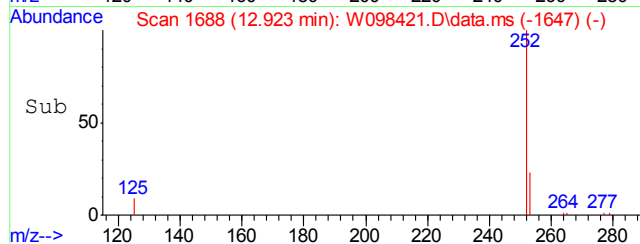
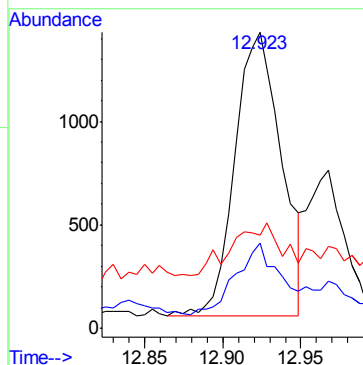
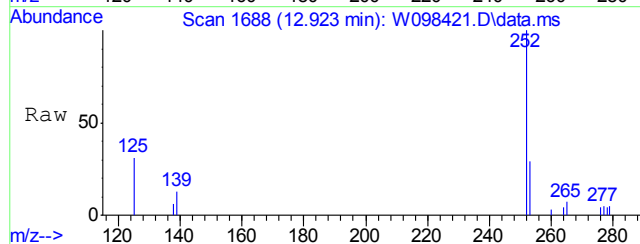
Tgt Ion	Ratio	Lower	Upper
228	100		
226	28.2	0.0	58.8
229	19.7	0.0	51.2





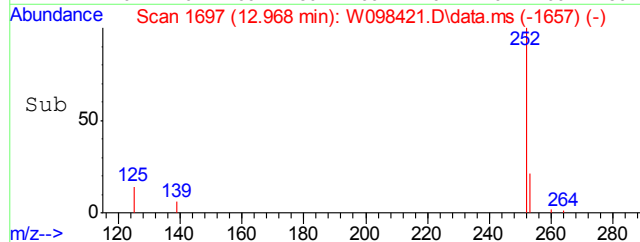
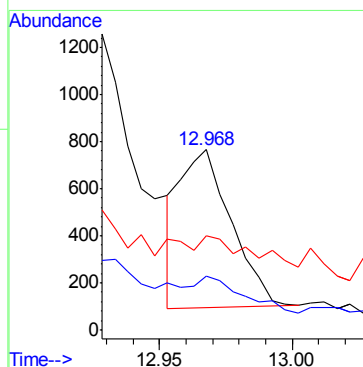
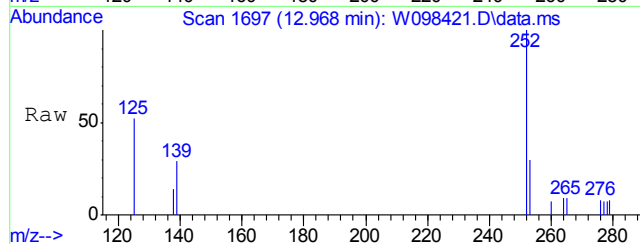
#26
Benzo[b]fluoranthene
Concen: 0.15 ppm
RT: 12.923 min Scan# 1688
Delta R.T. -0.000 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

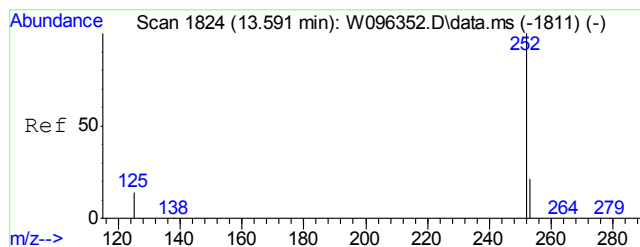
Tgt Ion	Ratio	Lower	Upper
252	100		
253	25.4	0.0	53.3
125	13.9	0.0	46.8



#27
Benzo[k]fluoranthene
Concen: 0.05 ppm
RT: 12.968 min Scan# 1697
Delta R.T. -0.005 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

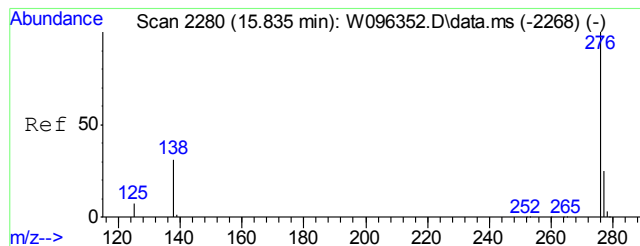
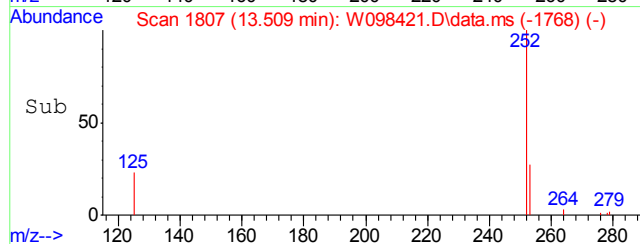
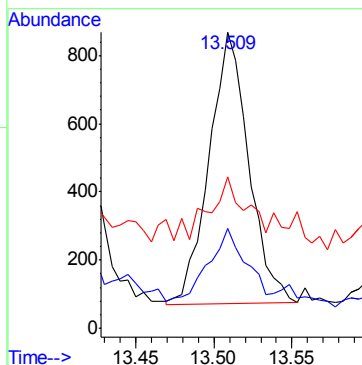
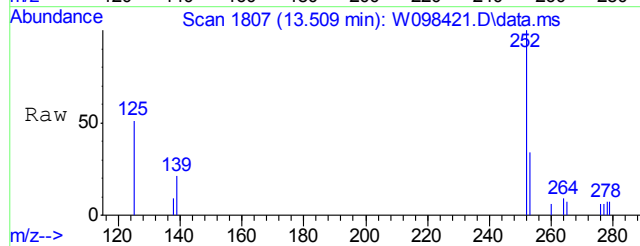
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.1	0.0	53.2
125	16.7	0.0	47.1





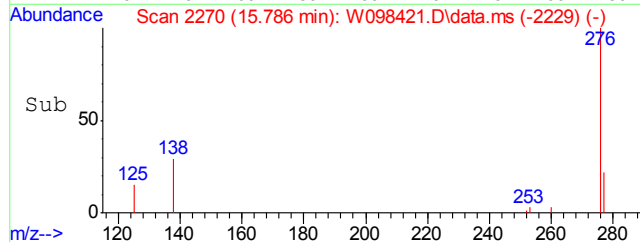
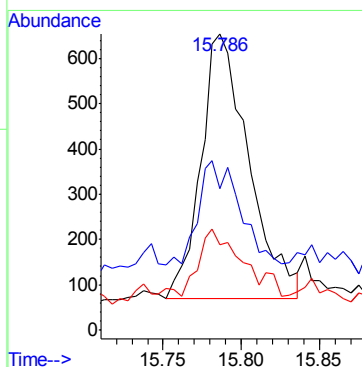
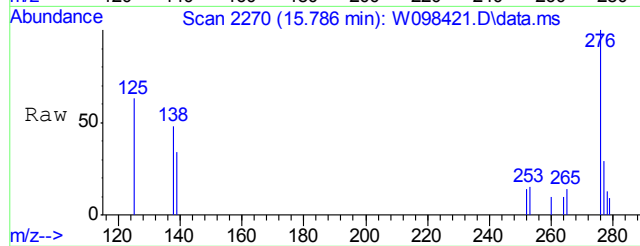
#28
Benzo[a]pyrene
Concen: 0.08 ppm
RT: 13.509 min Scan# 1807
Delta R.T. -0.010 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

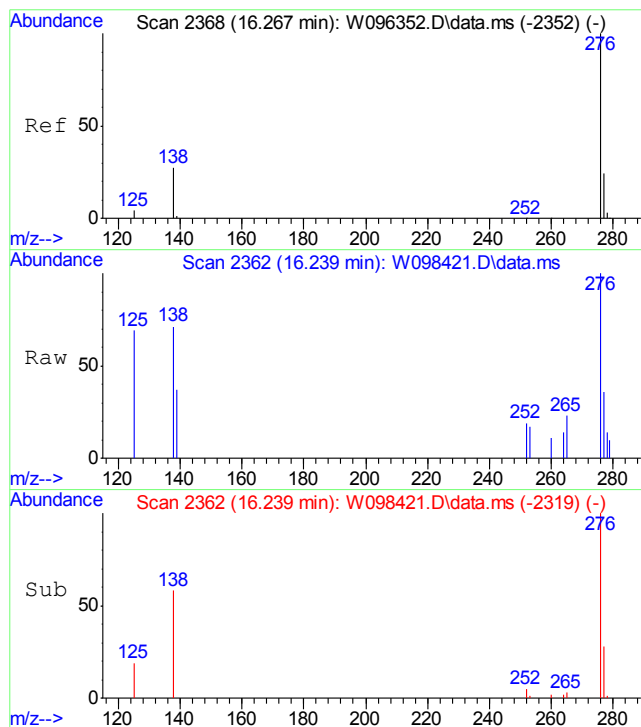
Tgt Ion	Ratio	Lower	Upper
252	100		
253	26.4	0.0	53.3
125	14.4	0.0	47.6



#29
Indeno[1,2,3-cd]pyrene
Concen: 0.08 ppm
RT: 15.786 min Scan# 2270
Delta R.T. 0.002 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

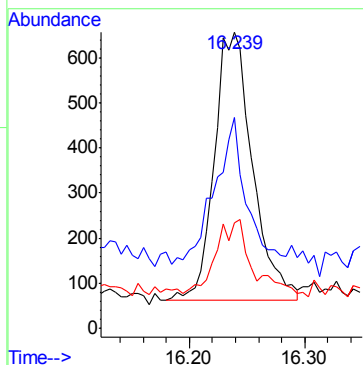
Tgt Ion	Ratio	Lower	Upper
276	100		
138	27.8	6.4	66.4
277	18.0	0.0	54.9





#31
Benzo[g,h,i]perylene
Concen: 0.08 ppm
RT: 16.239 min Scan# 2362
Delta R.T. 0.013 min
Lab File: W098421.D
Acq: 30 Mar 17 11:37 am

Tgt Ion:	276	Resp:	1378
Ion Ratio	Lower	Upper	
276	100		
138	52.6	7.9	67.9
277	26.1	0.0	55.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098333.D
 Acq On : 27 Mar 2017 5:51 pm
 Operator : fouads
 Sample : fa42100-3 Inst : MSBNA01
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Mar 28 11:14:04 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	126017	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	74010	4.00	ppm	-0.02
13) Phenanthrene-d10	8.396	188	110454	4.00	ppm	-0.02
20) Chrysene-d12	11.173	240	88764	4.00	ppm	-0.03
25) Perylene-d12	13.607	264	69889	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	48922	5.44	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	54.40%		
7) 2-Fluorobiphenyl	6.473	172	111029	4.87	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	48.70%		
14) 2,4,6-Tribromophenol	7.779	330	22059	10.82	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	54.10%		
22) Terphenyl-d14	9.869	244	83208	4.53	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	45.30%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.547	128	424	0.01	ppm	89
19) Fluoranthene	9.491	202	4114	0.12	ppm	91
21) Pyrene	9.712	202	3671	0.09	ppm	93
23) Benzo[a]anthracene	11.158	228	1235	0.04	ppm	89
24) Chrysene	11.212	228	1778	0.06	ppm	94
26) Benzo[b]fluoranthene	12.913	252	2377	0.09	ppm	92
27) Benzo[k]fluoranthene	12.958	252	1035	0.04	ppm	83
28) Benzo[a]pyrene	13.499	252	1174	0.05	ppm	89
29) Indeno[1,2,3-cd]pyrene	15.776	276	950	0.05	ppm	90
31) Benzo[g,h,i]perylene	16.229	276	1011	0.04	ppm	66

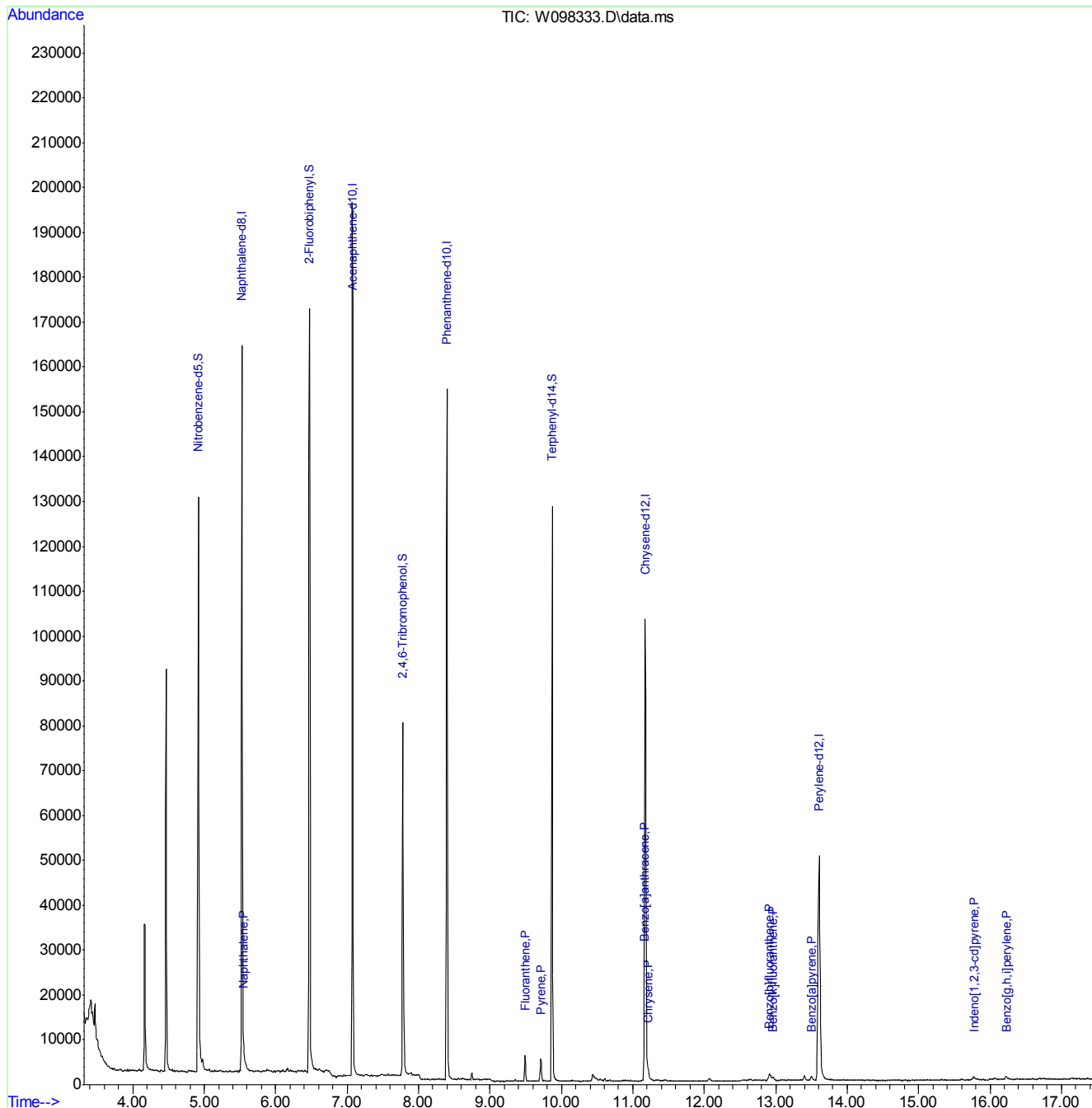
(#) = qualifier out of range (m) = manual integration (+) = signals summed

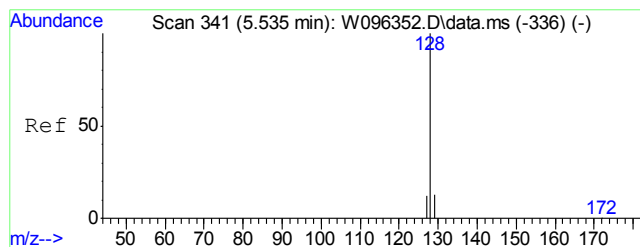
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098333.D
 Acq On : 27 Mar 2017 5:51 pm
 Operator : fouads
 Sample : fa42100-3
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 23 Sample Multiplier: 1

Inst : MSBNA01

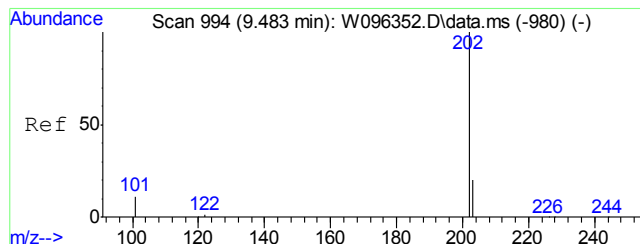
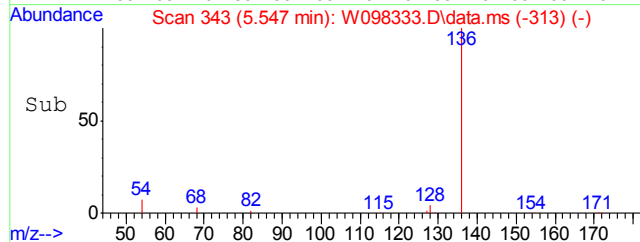
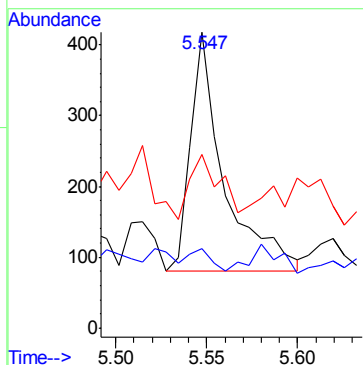
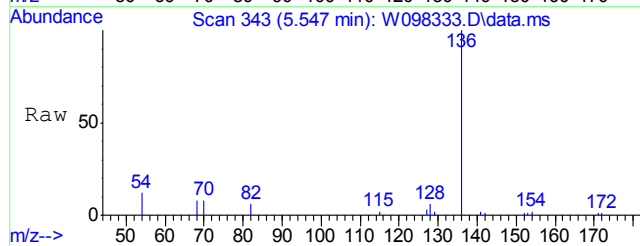
Quant Time: Mar 28 11:14:04 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration





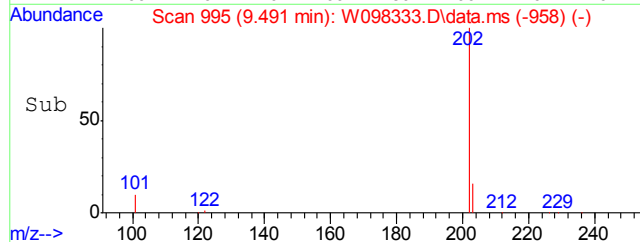
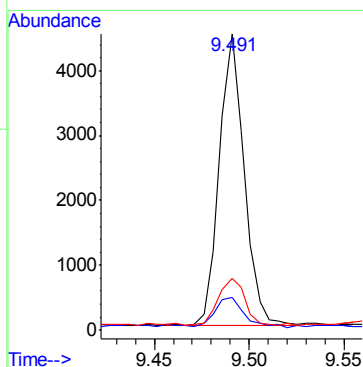
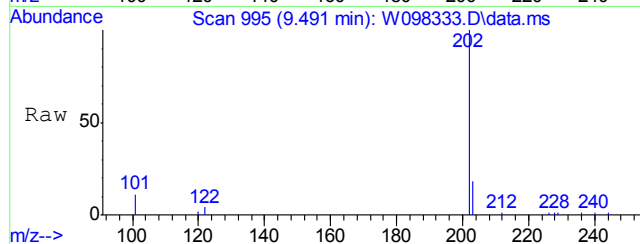
#3
Naphthalene
Concen: 0.01 ppm
RT: 5.547 min Scan# 343
Delta R.T. -0.007 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

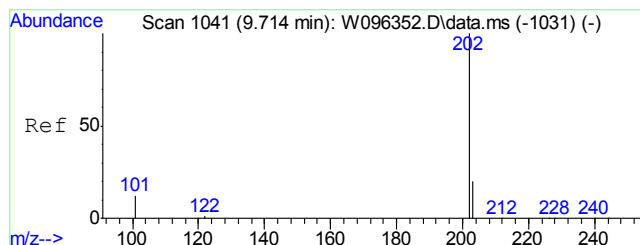
Tgt Ion:128 Resp: 424
Ion Ratio Lower Upper
128 100
129 6.2 0.0 42.9
127 15.0 0.0 42.8



#19
Fluoranthene
Concen: 0.12 ppm
RT: 9.491 min Scan# 995
Delta R.T. -0.018 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

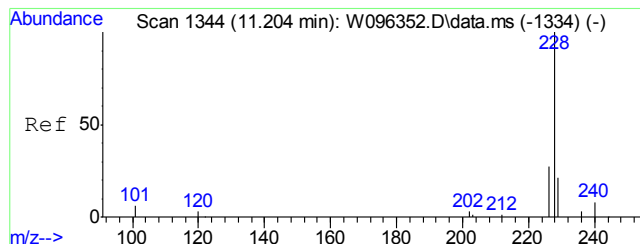
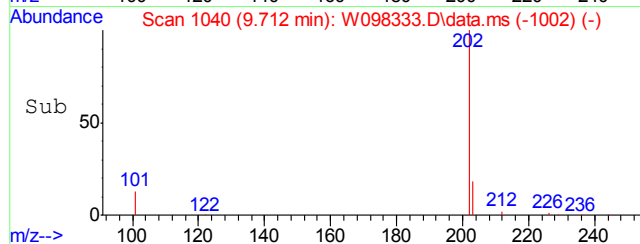
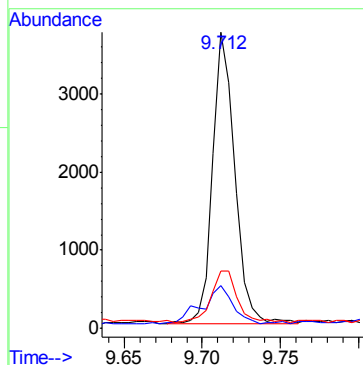
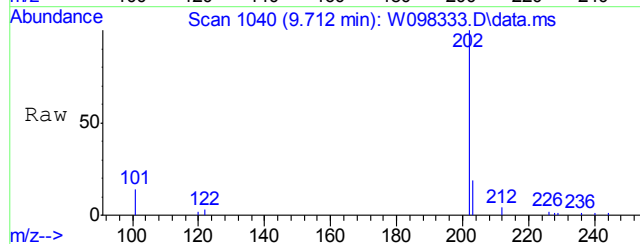
Tgt Ion:202 Resp: 4114
Ion Ratio Lower Upper
202 100
101 9.5 0.0 43.2
203 15.9 0.0 50.3





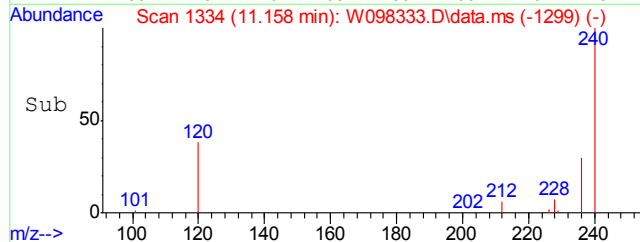
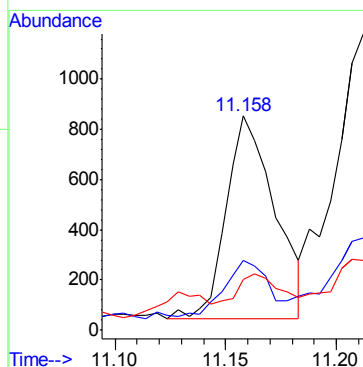
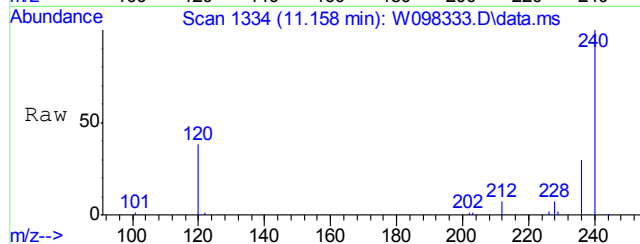
#21
 Pyrene
 Concen: 0.09 ppm
 RT: 9.712 min Scan# 1040
 Delta R.T. -0.015 min
 Lab File: W098333.D
 Acq: 27 Mar 17 5:51 pm

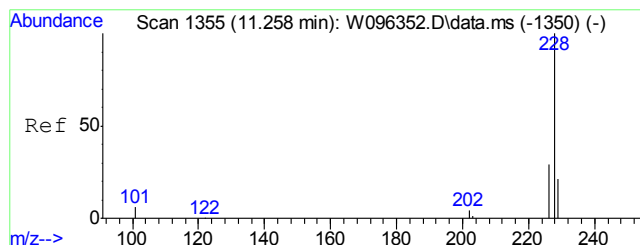
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.5	0.0	45.4
203	16.9	0.0	50.4



#23
 Benzo[a]anthracene
 Concen: 0.04 ppm
 RT: 11.158 min Scan# 1334
 Delta R.T. -0.025 min
 Lab File: W098333.D
 Acq: 27 Mar 17 5:51 pm

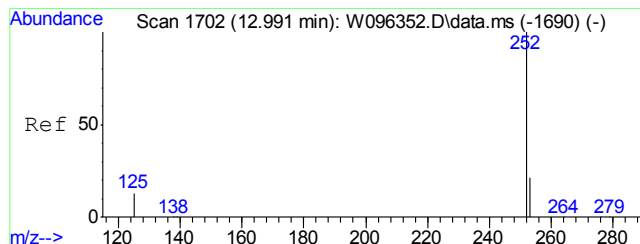
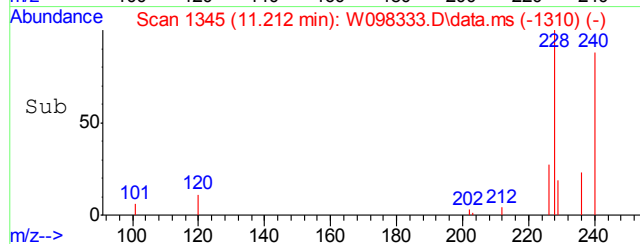
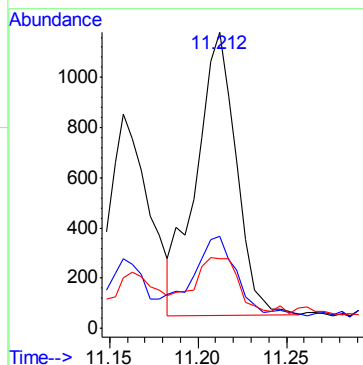
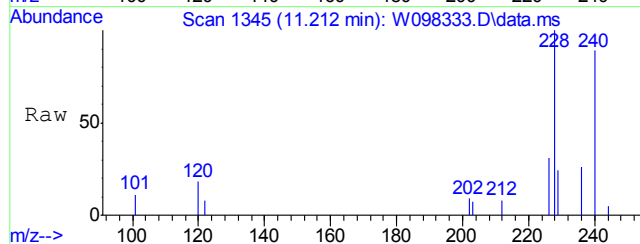
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.6	0.0	56.0
229	11.4	0.0	51.7





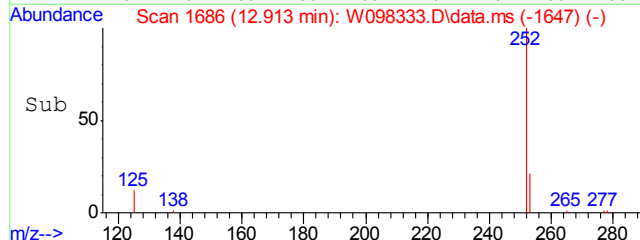
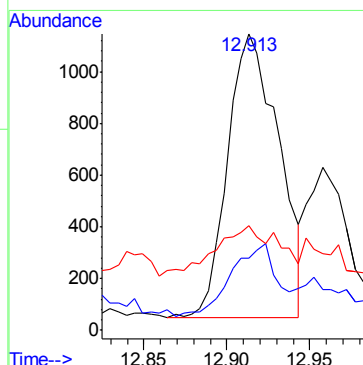
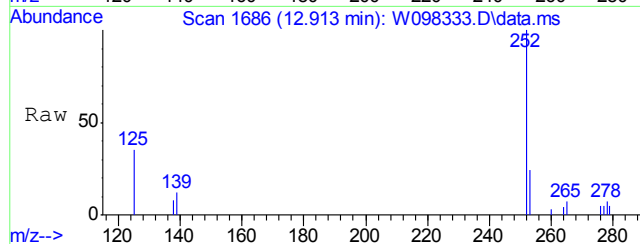
#24
Chrysene
Concen: 0.06 ppm
RT: 11.212 min Scan# 1345
Delta R.T. -0.026 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

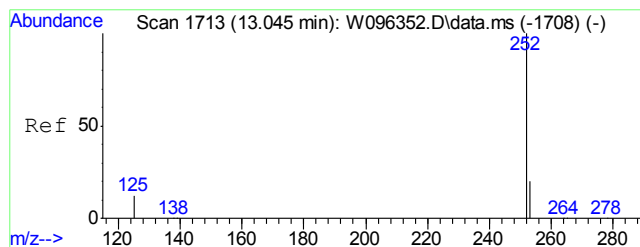
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.7	0.0	58.8
229	17.1	0.0	51.2



#26
Benzo[b]fluoranthene
Concen: 0.09 ppm
RT: 12.913 min Scan# 1686
Delta R.T. -0.010 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

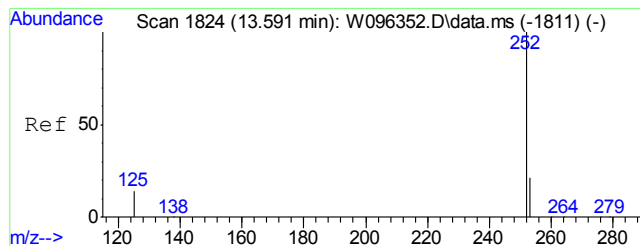
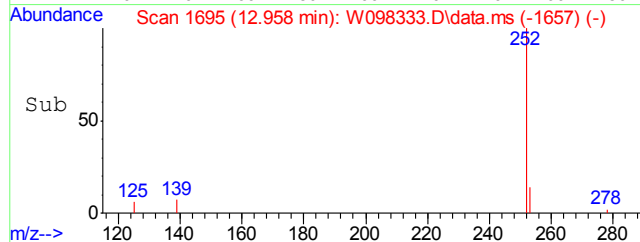
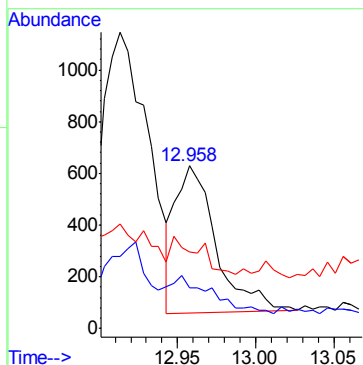
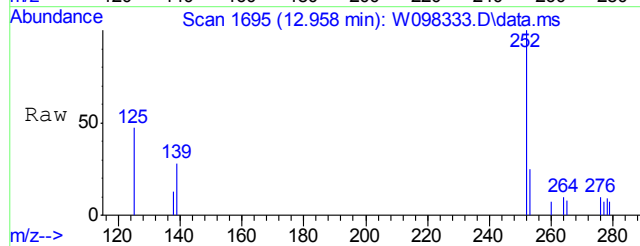
Tgt Ion	Ratio	Lower	Upper
252	100		
253	17.2	0.0	53.3
125	17.5	0.0	46.8





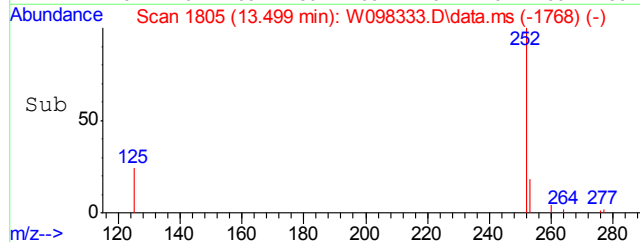
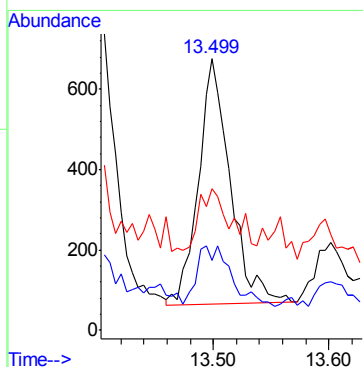
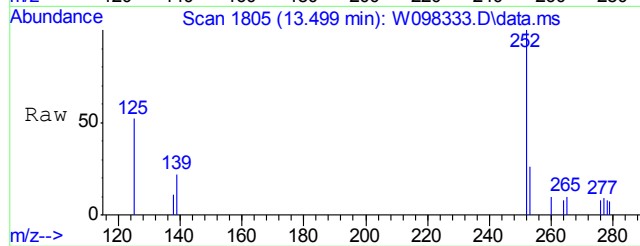
#27
Benzo[k]fluoranthene
Concen: 0.04 ppm
RT: 12.958 min Scan# 1695
Delta R.T. -0.015 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

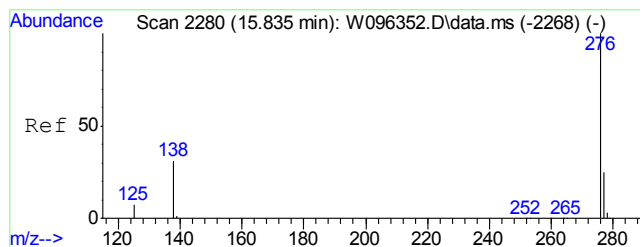
Tgt Ion	Ratio	Lower	Upper
252	100		
253	10.2	0.0	53.2
125	15.8	0.0	47.1



#28
Benzo[a]pyrene
Concen: 0.05 ppm
RT: 13.499 min Scan# 1805
Delta R.T. -0.020 min
Lab File: W098333.D
Acq: 27 Mar 17 5:51 pm

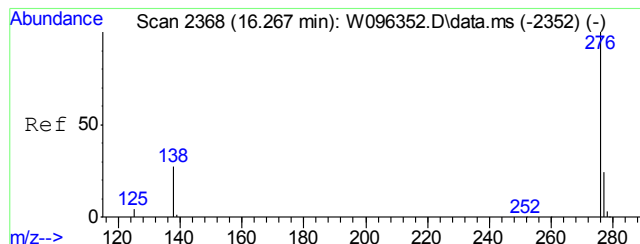
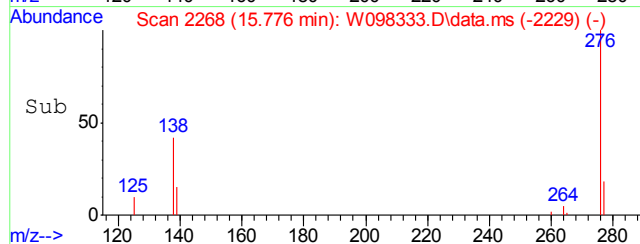
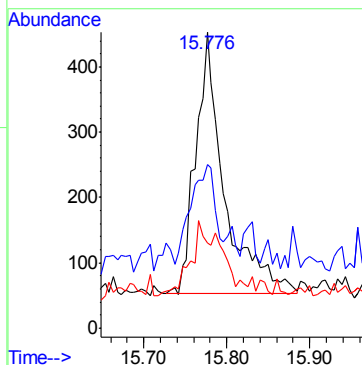
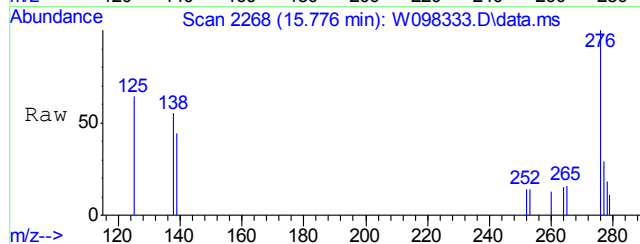
Tgt Ion	Ratio	Lower	Upper
252	100		
253	16.3	0.0	53.3
125	20.2	0.0	47.6





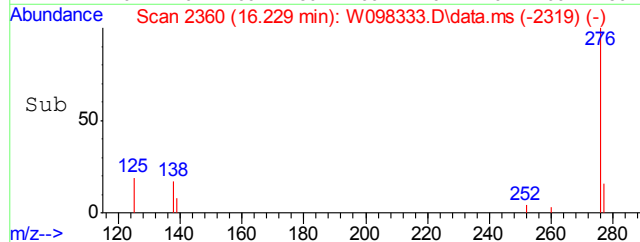
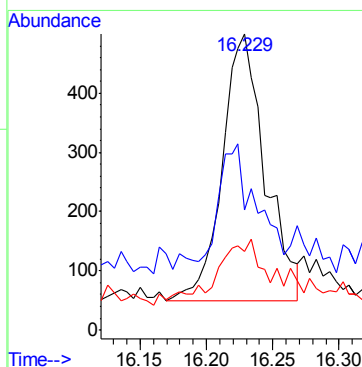
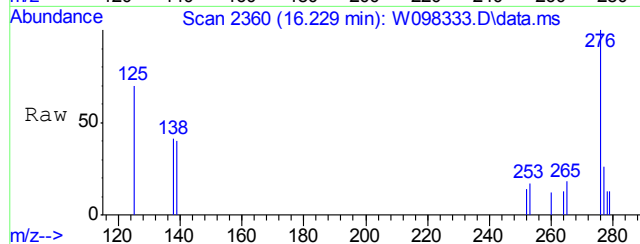
#29
 Indeno[1,2,3-cd]pyrene
 Concen: 0.05 ppm
 RT: 15.776 min Scan# 2268
 Delta R.T. -0.008 min
 Lab File: W098333.D
 Acq: 27 Mar 17 5:51 pm

Tgt Ion: 276 Resp: 950
 Ion Ratio Lower Upper
 276 100
 138 31.8 6.4 66.4
 277 18.1 0.0 54.9



#31
 Benzo[g,h,i]perylene
 Concen: 0.04 ppm
 RT: 16.229 min Scan# 2360
 Delta R.T. 0.003 min
 Lab File: W098333.D
 Acq: 27 Mar 17 5:51 pm

Tgt Ion: 276 Resp: 1011
 Ion Ratio Lower Upper
 276 100
 138 11.9 7.9 67.9
 277 15.5 0.0 55.3



(b) (6)
03/31/17 14:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098334.D
 Acq On : 27 Mar 2017 6:14 pm
 Operator : fouads
 Sample : fa42100-4
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 24 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 11:16:08 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Naphthalene-d8	5.527	136	129539	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	71467	4.00	ppm	-0.02
13) Phenanthrene-d10	8.395	188	107812	4.00	ppm	-0.02
20) Chrysene-d12	11.174	240	87916	4.00	ppm	-0.02
25) Perylene-d12	13.603	264	69255	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.914	82	49134	5.31	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	53.10%		
7) 2-Fluorobiphenyl	6.472	172	113321	5.15	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	51.50%		
14) 2,4,6-Tribromophenol	7.780	330	21258	10.68	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	53.40%		
22) Terphenyl-d14	9.866	244	79536	4.38	ppm	-0.02
Spiked Amount 10.000	Range 45 - 119		Recovery =	43.80%#		
Target Compounds						Qvalue
19) Fluoranthene	9.492	202	3906	0.12	ppm	94
21) Pyrene	9.713	202	2920	0.08	ppm	97
23) Benzo[a]anthracene	11.159	228	998	0.03	ppm	95
24) Chrysene	11.213	228	1699	0.06	ppm	97
26) Benzo[b]fluoranthene	12.914	252	2202	0.09	ppm	84
27) Benzo[k]fluoranthene	12.958	252	1025m	0.04	ppm	
28) Benzo[a]pyrene	13.495	252	992	0.04	ppm	88
29) Indeno[1,2,3-cd]pyrene	15.787	276	839	0.04	ppm	83
31) Benzo[g,h,i]perylene	16.230	276	1000	0.04	ppm	86

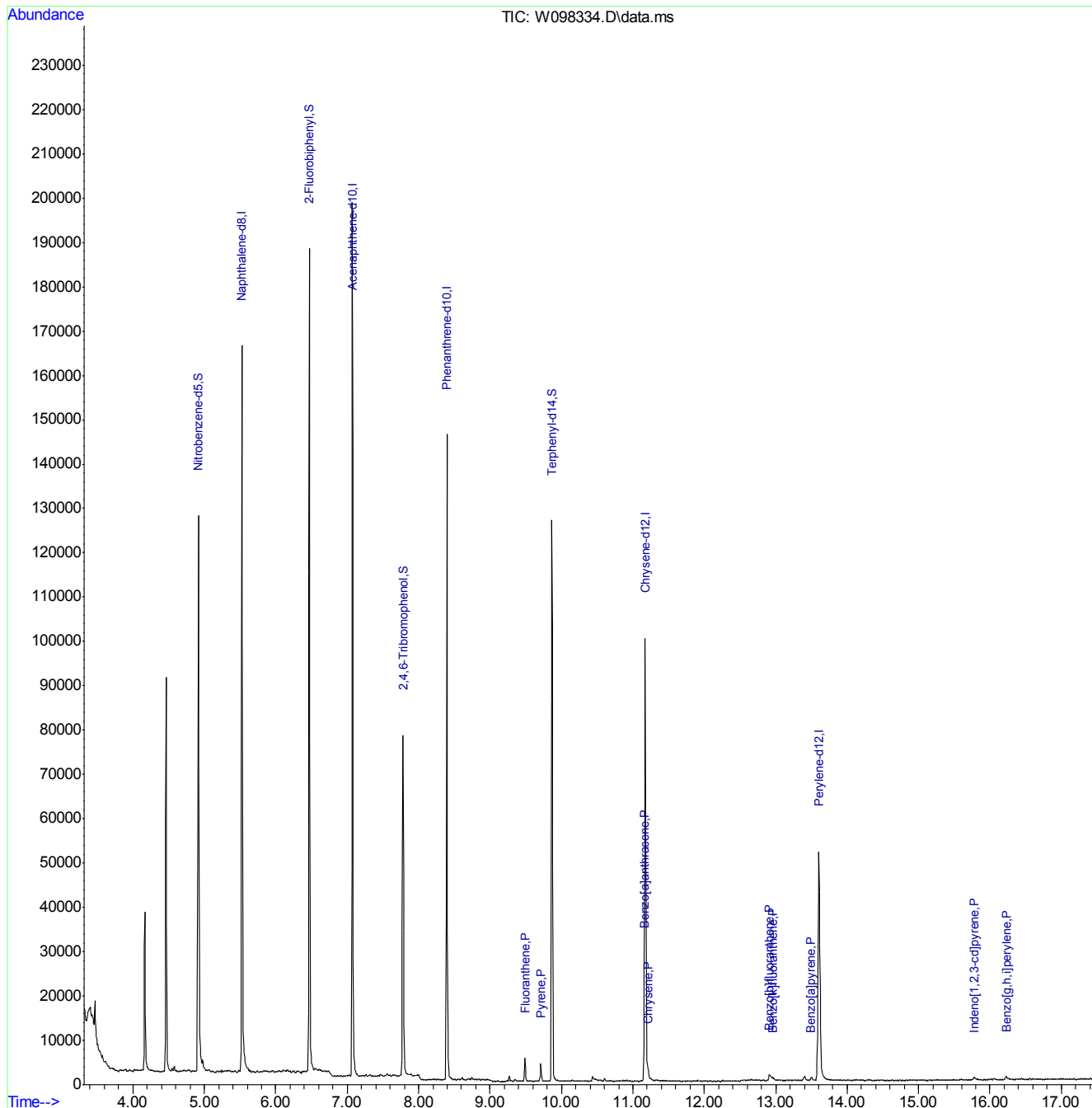
(#) = qualifier out of range (m) = manual integration (+) = signals summed

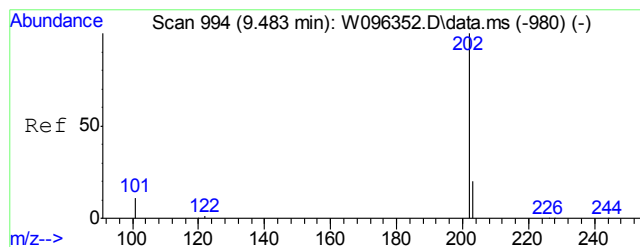
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098334.D
Acq On : 27 Mar 2017 6:14 pm
Operator : fouads
Sample : fa42100-4
Misc : op64340,sw4367,14.7,,,1,1,soil
ALS Vial : 24 Sample Multiplier: 1

Inst : MSBNA01

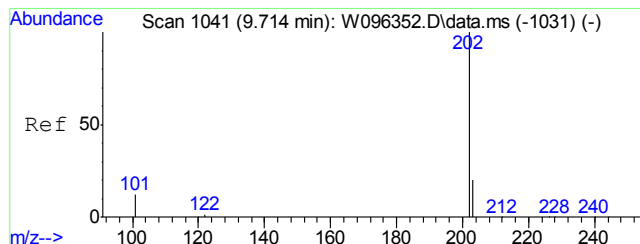
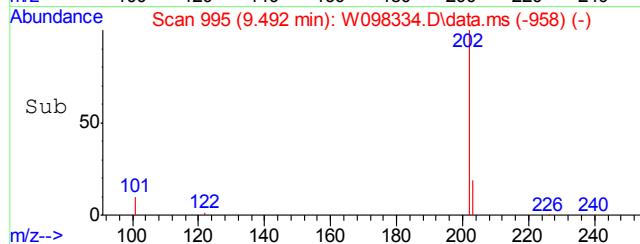
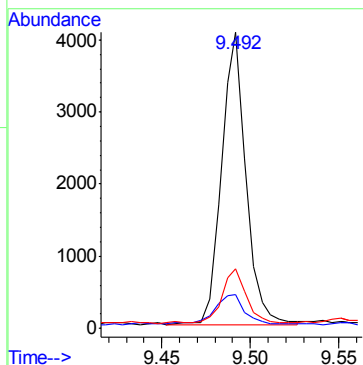
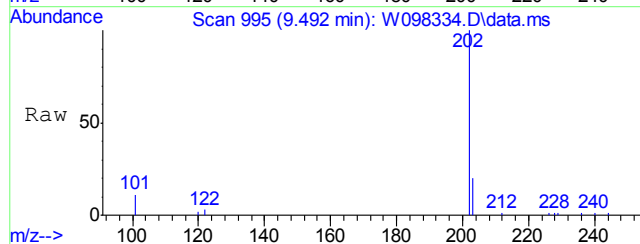
Quant Time: Mar 28 11:16:08 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration





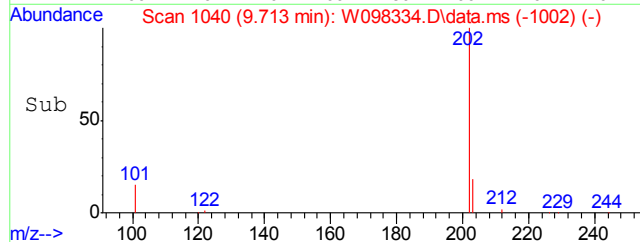
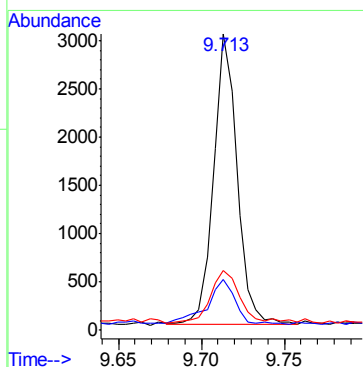
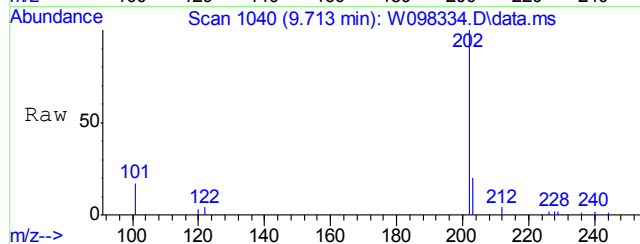
#19
Fluoranthene
Concen: 0.12 ppm
RT: 9.492 min Scan# 995
Delta R.T. -0.017 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

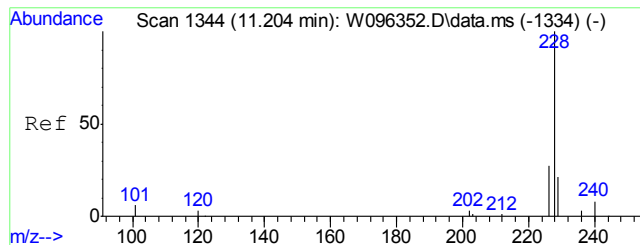
Tgt Ion	Ratio	Lower	Upper
202	100		
101	9.9	0.0	43.2
203	18.6	0.0	50.3



#21
Pyrene
Concen: 0.08 ppm
RT: 9.713 min Scan# 1040
Delta R.T. -0.014 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

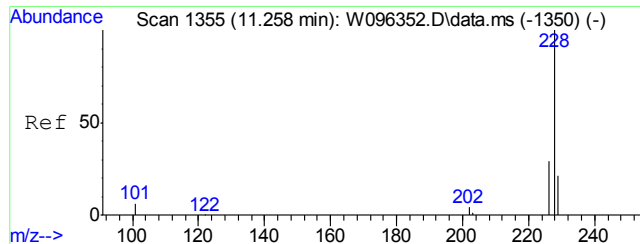
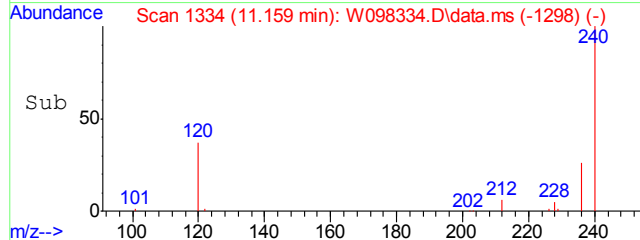
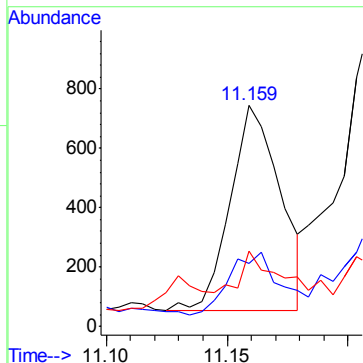
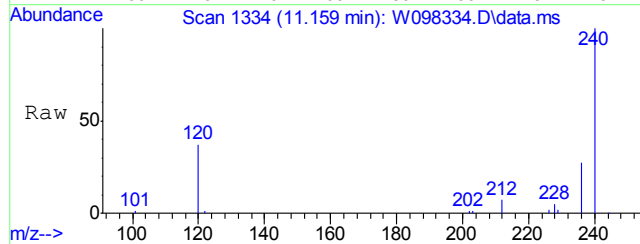
Tgt Ion	Ratio	Lower	Upper
202	100		
101	14.9	0.0	45.4
203	18.1	0.0	50.4





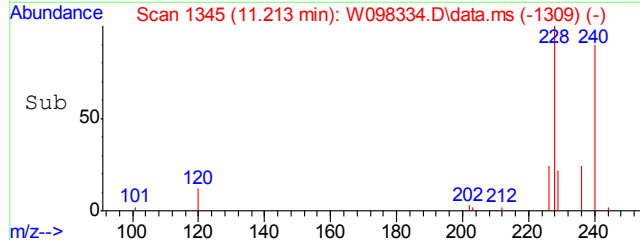
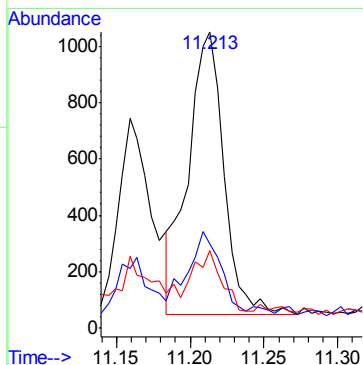
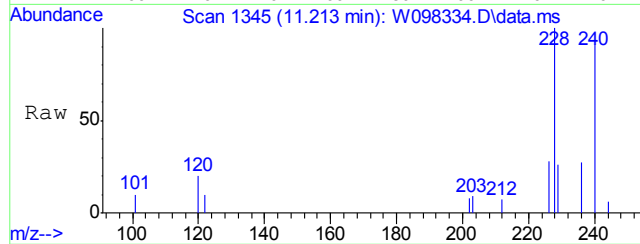
#23
Benzo[a]anthracene
Concen: 0.03 ppm
RT: 11.159 min Scan# 1334
Delta R.T. -0.024 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

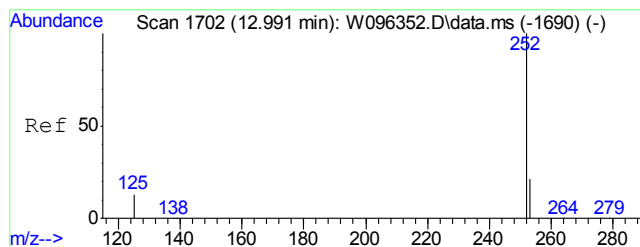
Tgt Ion	Ratio	Lower	Upper
228	100		
226	22.2	0.0	56.0
229	20.4	0.0	51.7



#24
Chrysene
Concen: 0.06 ppm
RT: 11.213 min Scan# 1345
Delta R.T. -0.024 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

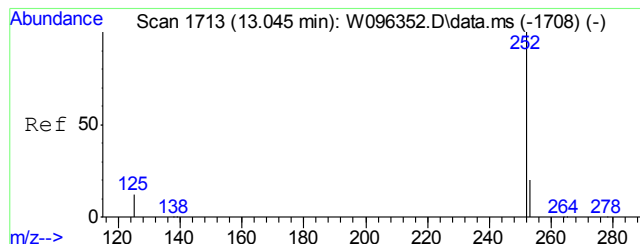
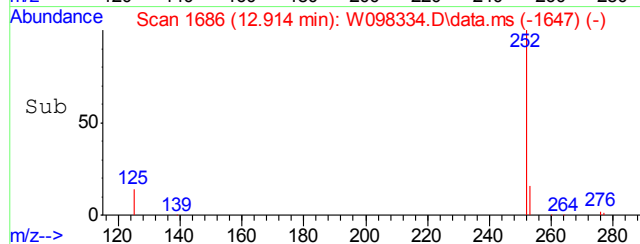
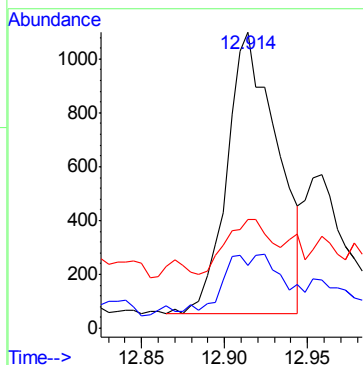
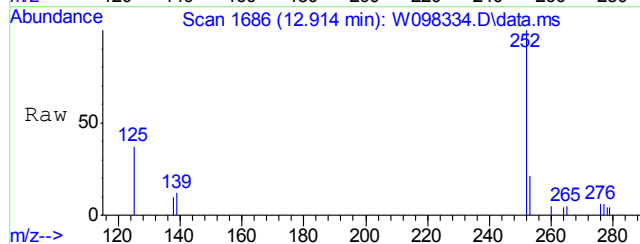
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.4	0.0	58.8
229	21.6	0.0	51.2





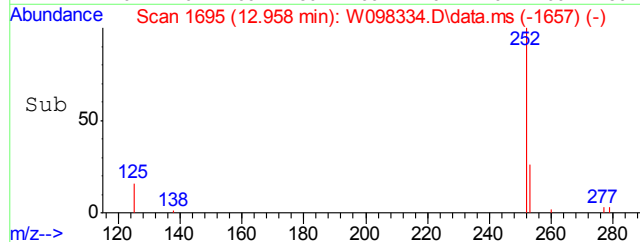
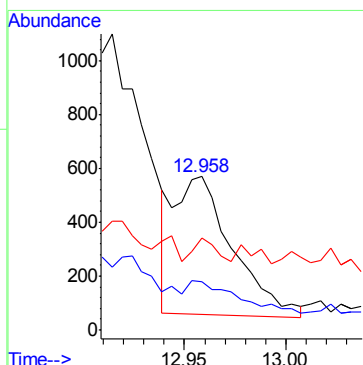
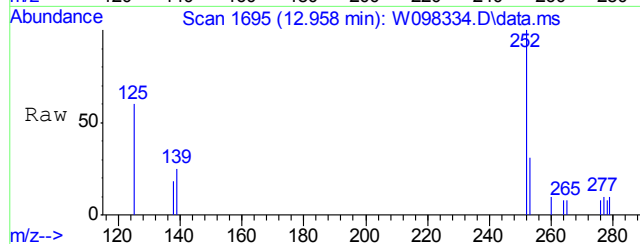
#26
Benzo[b]fluoranthene
Concen: 0.09 ppm
RT: 12.914 min Scan# 1686
Delta R.T. -0.009 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

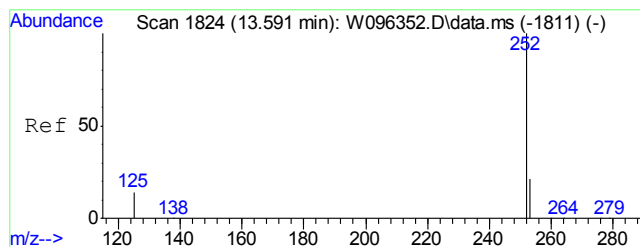
Tgt Ion	Ratio	Lower	Upper
252	100		
253	13.0	0.0	53.3
125	13.4	0.0	46.8



#27
Benzo[k]fluoranthene
Concen: 0.04 ppm m
RT: 12.958 min Scan# 1695
Delta R.T. -0.014 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

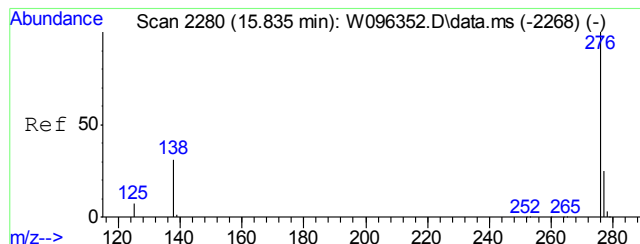
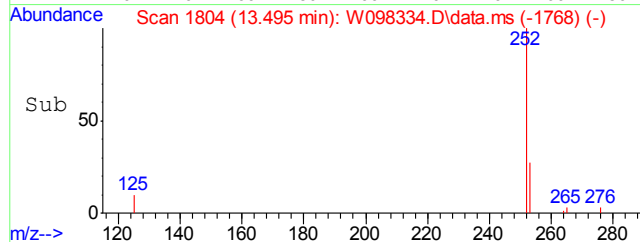
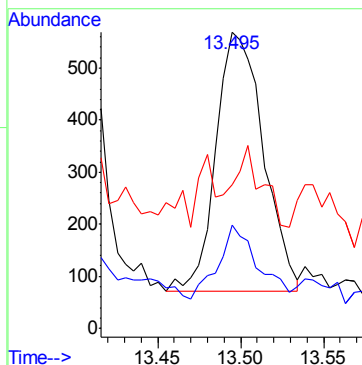
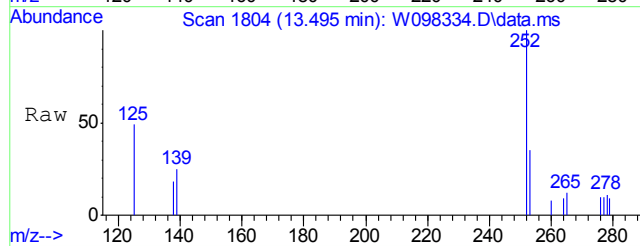
Tgt Ion	Ratio	Lower	Upper
252	100		
253	31.5	0.0	53.2
125	60.3	0.0	47.1#





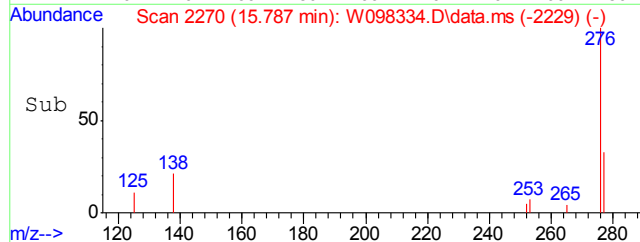
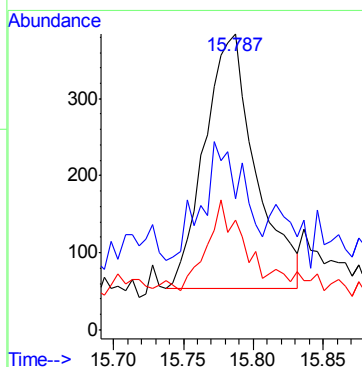
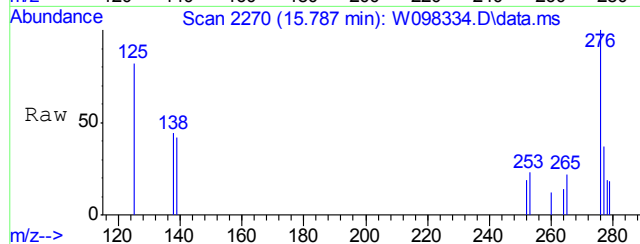
#28
Benzo[a]pyrene
Concen: 0.04 ppm
RT: 13.495 min Scan# 1804
Delta R.T. -0.024 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

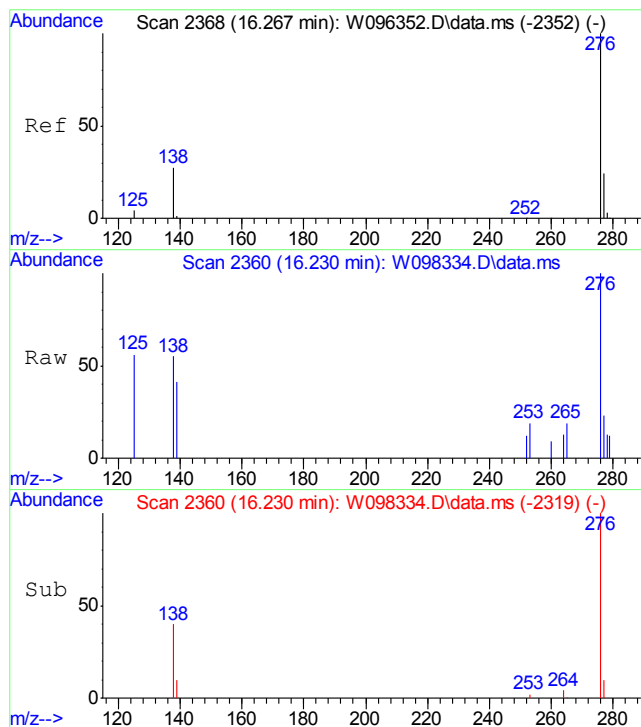
Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.7	0.0	53.3
125	6.9	0.0	47.6



#29
Indeno[1,2,3-cd]pyrene
Concen: 0.04 ppm
RT: 15.787 min Scan# 2270
Delta R.T. 0.002 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

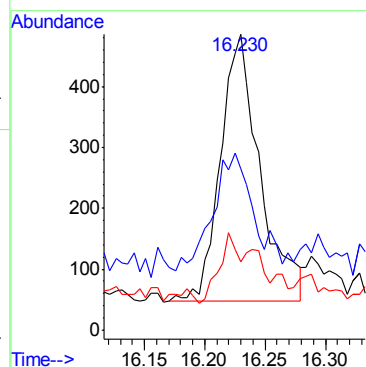
Tgt Ion	Ratio	Lower	Upper
276	100		
138	20.9	6.4	66.4
277	23.7	0.0	54.9





#31
Benzo[g,h,i]perylene
Concen: 0.04 ppm
RT: 16.230 min Scan# 2360
Delta R.T. 0.004 min
Lab File: W098334.D
Acq: 27 Mar 17 6:14 pm

Tgt Ion	276	Resp	1000
Ion Ratio	100	Lower	Upper
276	100		
138	35.9	7.9	67.9
277	10.1	0.0	55.3



Manual Integration Approval Summary

Page 1 of 1

Sample Number: FA42100-4
Lab FileID: W098334.D
Injection Time: 03/27/17 18:14

Method: SW846 8270D BY SIM
Analyst approved: 03/31/17 11:04 (b) (6)
Supervisor approved: 03/31/17 14:18 (b) (6)

Parameter	CAS	Sig#	R.T. (min.)	Reason
Benzo(k)fluoranthene	207-08-9		12.96	Missed peak

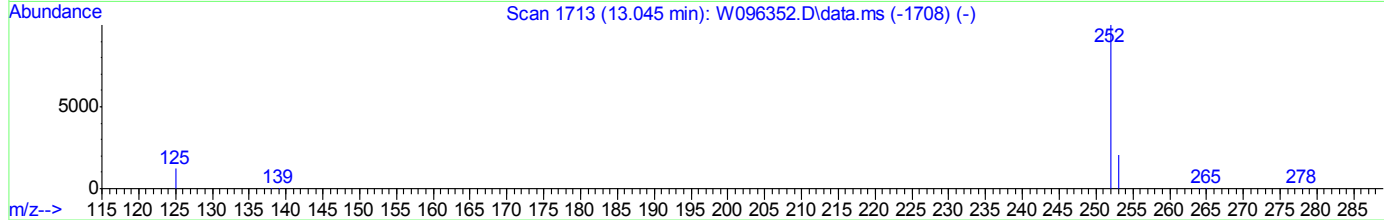
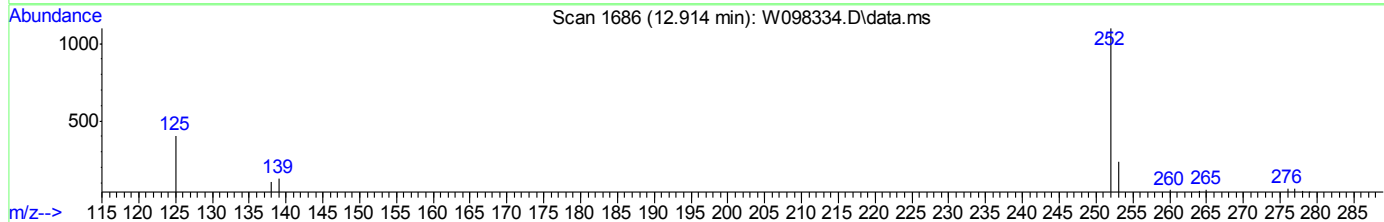
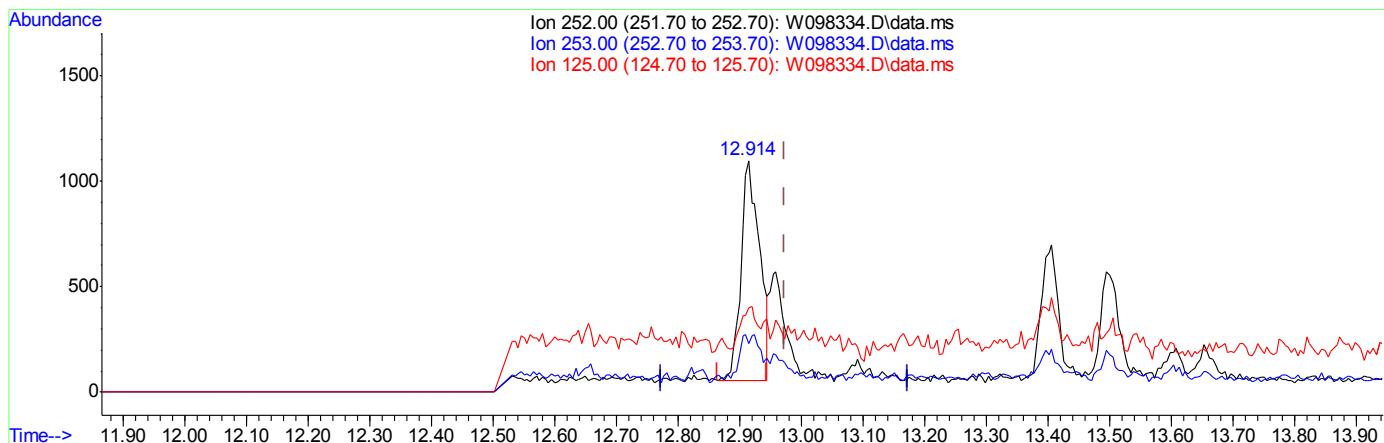
7.1.4.1

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098334.D
 Acq On : 27 Mar 2017 6:14 pm
 Operator : fouads
 Sample : fa42100-4
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 24 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:08 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration



TIC: W098334.D\data.ms

(27) Benzo[k]fluoranthene (P)

12.914min (-0.059) 0.09ppm

response 2202

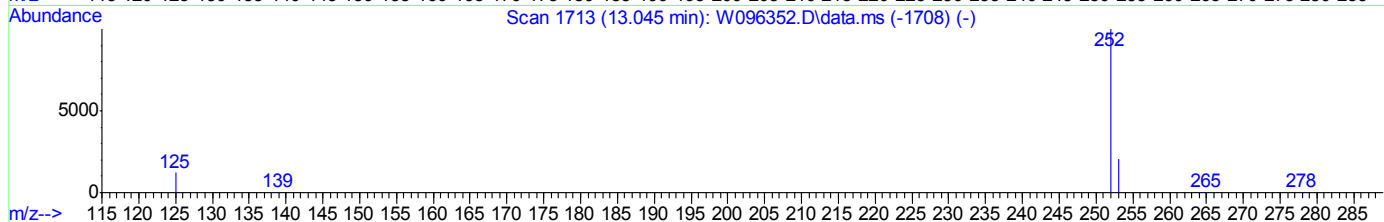
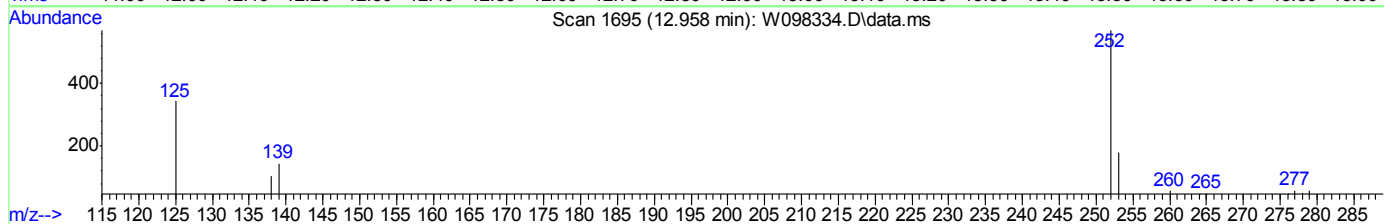
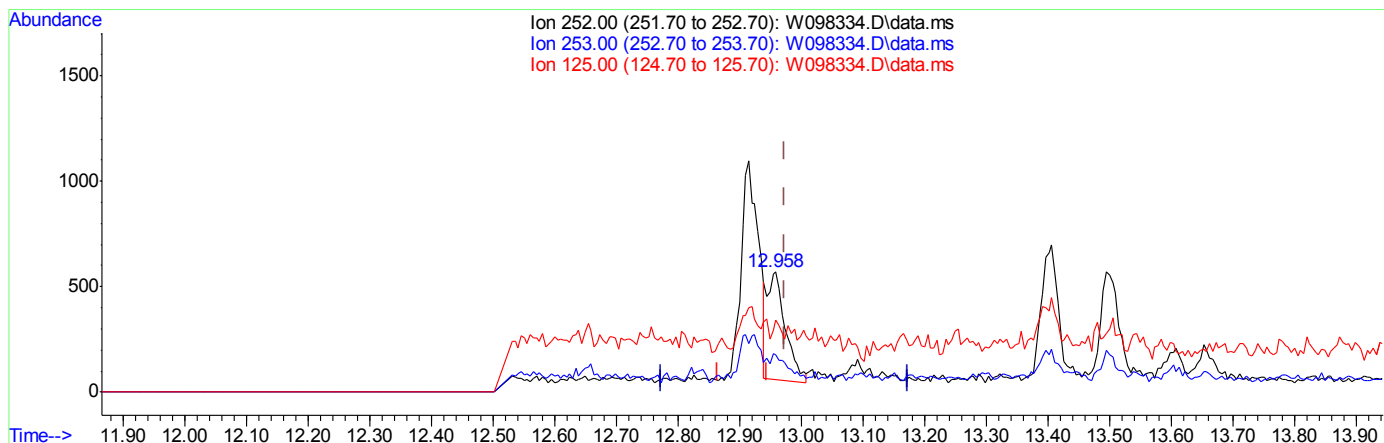
Ion	Exp%	Act%
252.00	100	100
253.00	23.20	13.01
125.00	17.10	13.42
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098334.D
 Acq On : 27 Mar 2017 6:14 pm
 Operator : fouads
 Sample : fa42100-4
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 24 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:08 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration



TIC: W098334.D\data.ms

(27) Benzo[k]fluoranthene (P)

12.958min (-0.014) 0.04ppm m

response 1025

Ion	Exp%	Act%
252.00	100	100
253.00	23.20	31.46
125.00	17.10	60.28#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
 Data File : W098433.D
 Acq On : 30 Mar 2017 4:36 pm
 Operator : fouads
 Sample : fa42100-4cfs
 Misc : op64416,sw4370,15.0,,,1,1,soil
 ALS Vial : 16 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 31 08:11:41 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	71526	4.00	ppm	-0.01
6) Acenaphthene-d10	7.080	164	40891	4.00	ppm	-0.01
13) Phenanthrene-d10	8.399	188	63483	4.00	ppm	-0.01
20) Chrysene-d12	11.178	240	55241	4.00	ppm	-0.02
25) Perylene-d12	13.611	264	53378	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	33683	6.60	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	66.00%		
7) 2-Fluorobiphenyl	6.473	172	89720	7.19	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	71.90%		
14) 2,4,6-Tribromophenol	7.787	330	16320	13.93	ppm	-0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	69.65%		
22) Terphenyl-d14	9.870	244	63380	5.55	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	55.50%		
Target Compounds						
19) Fluoranthene	9.491	202	3073	0.15	ppm	93
21) Pyrene	9.718	202	2640	0.11	ppm	95
23) Benzo[a]anthracene	11.164	228	1089	0.05	ppm	80
24) Chrysene	11.218	228	1639	0.09	ppm	95
26) Benzo[b]fluoranthene	12.923	252	2498	0.13	ppm	86
27) Benzo[k]fluoranthene	12.967	252	889	0.05	ppm	60
28) Benzo[a]pyrene	13.508	252	1298	0.07	ppm	88
29) Indeno[1,2,3-cd]pyrene	15.786	276	1112	0.07	ppm	90
31) Benzo[g,h,i]perylene	16.233	276	1336	0.08	ppm	91

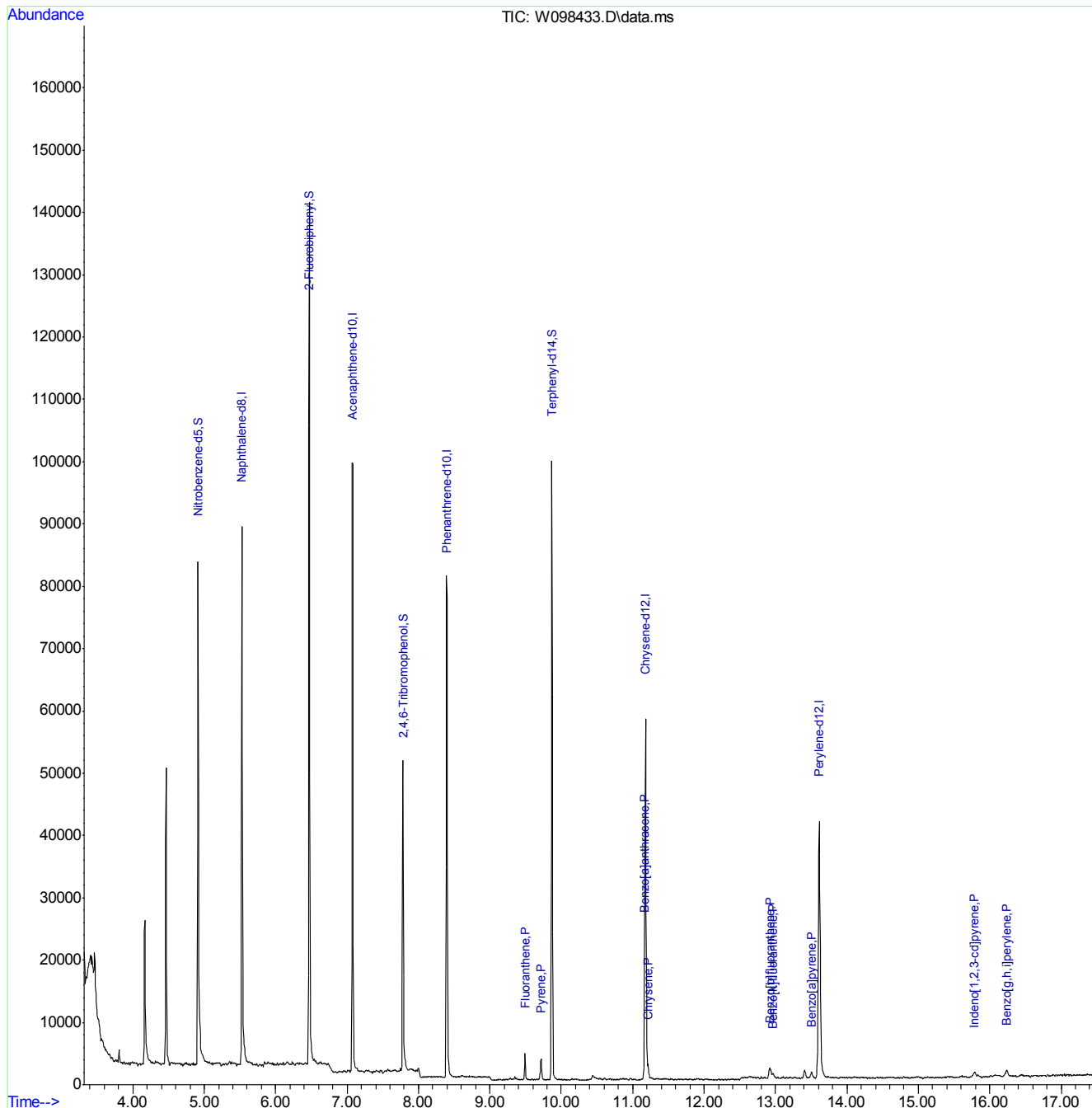
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\DATA\SW4370\  
Data File : W098433.D  
Acq On    : 30 Mar 2017    4:36 pm  
Operator   : fouads  
Sample     : fa42100-4cfs  
Misc       : op64416,sw4370,15.0,,,1,1,soil  
ALS Vial   : 16    Sample Multiplier: 1
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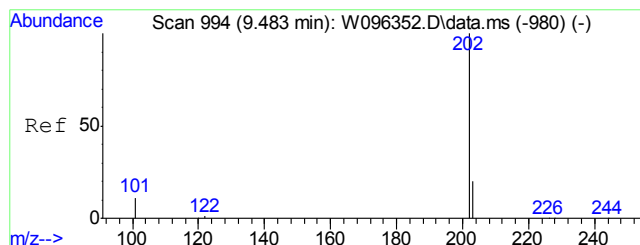
Inst : MSBNA01

Quant Time: Mar 31 08:11:41 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



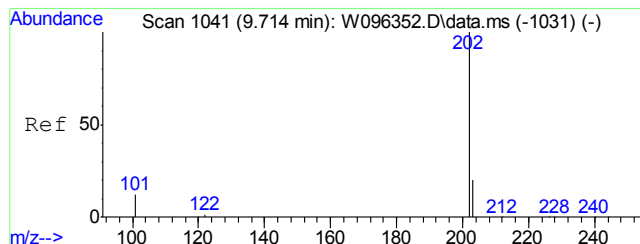
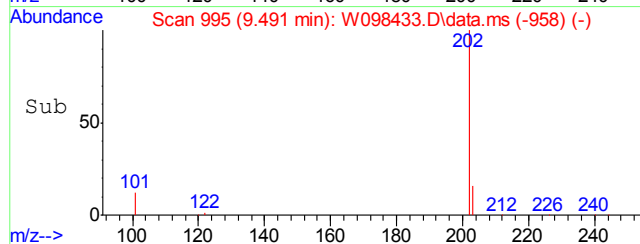
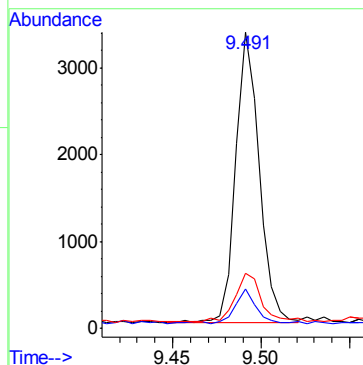
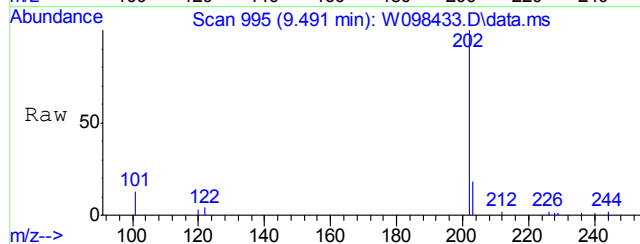
simpahf.m Fri Mar 31 10:44:14 2017

Page: 2



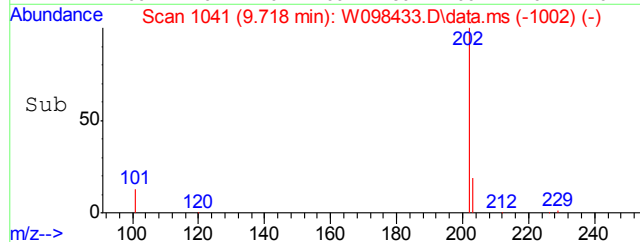
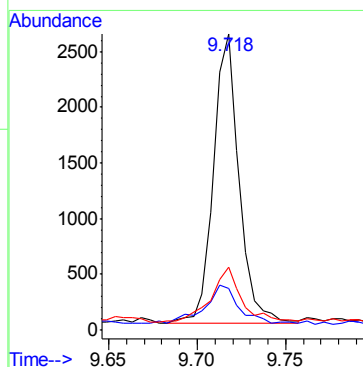
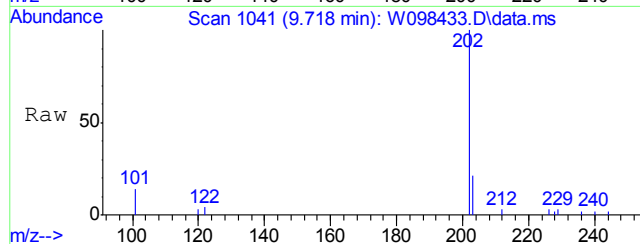
#19
Fluoranthene
Concen: 0.15 ppm
RT: 9.491 min Scan# 995
Delta R.T. -0.018 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

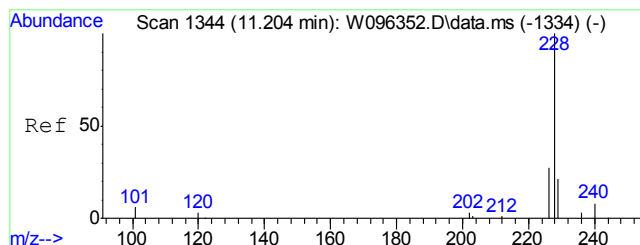
Tgt Ion:	202	Resp:	3073
Ion	Ratio	Lower	Upper
202	100		
101	11.8	0.0	43.2
203	15.9	0.0	50.3



#21
Pyrene
Concen: 0.11 ppm
RT: 9.718 min Scan# 1041
Delta R.T. -0.009 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

Tgt Ion:	202	Resp:	2640
Ion	Ratio	Lower	Upper
202	100		
101	12.1	0.0	45.4
203	18.7	0.0	50.4





#23

Benzo[a]anthracene

Concen: 0.05 ppm

RT: 11.164 min Scan# 1335

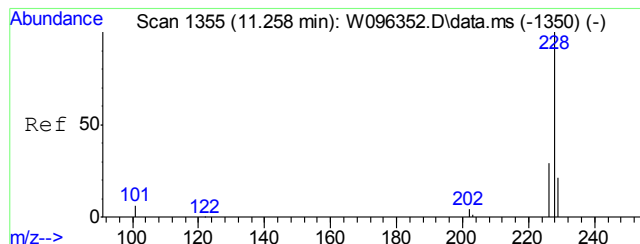
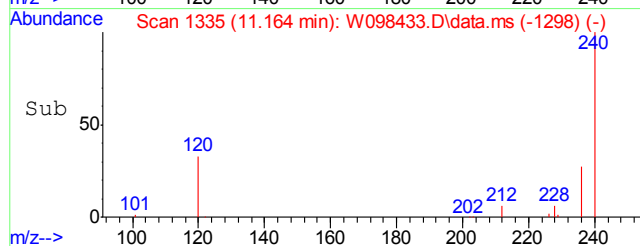
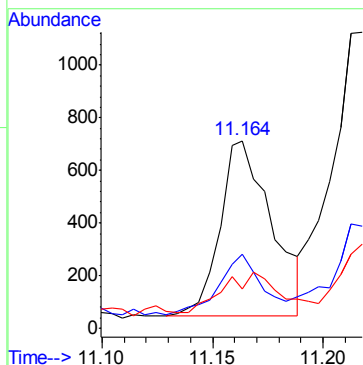
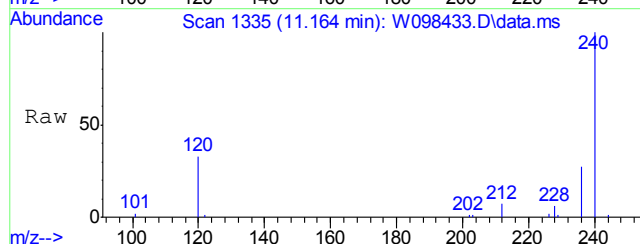
Delta R.T. -0.020 min

Lab File: W098433.D

Acq: 30 Mar 17 4:36 pm

Tgt Ion: 228 Resp: 1089

Ion	Ratio	Lower	Upper
228	100		
226	35.2	0.0	56.0
229	11.1	0.0	51.7



#24

Chrysene

Concen: 0.09 ppm

RT: 11.218 min Scan# 1346

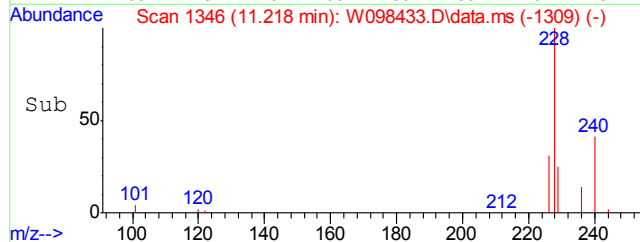
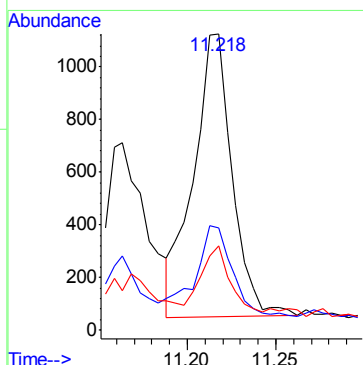
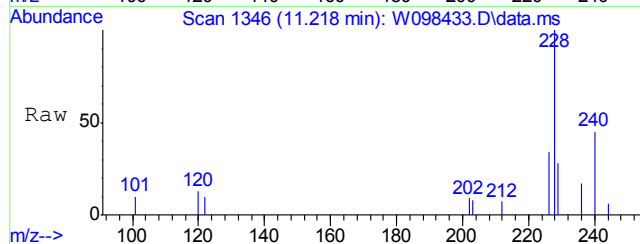
Delta R.T. -0.020 min

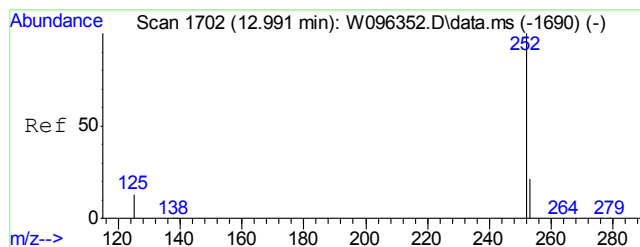
Lab File: W098433.D

Acq: 30 Mar 17 4:36 pm

Tgt Ion: 228 Resp: 1639

Ion	Ratio	Lower	Upper
228	100		
226	31.5	0.0	58.8
229	23.5	0.0	51.2

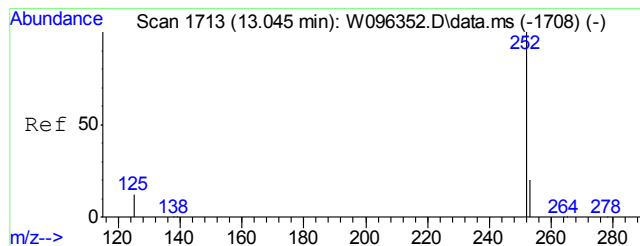
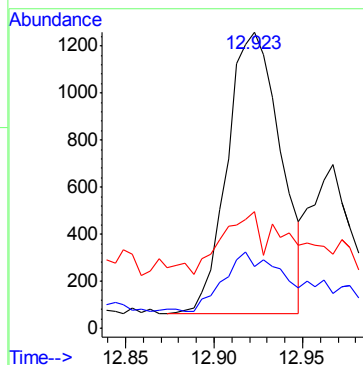




#26

Benzo[b]fluoranthene
Concen: 0.13 ppm
RT: 12.923 min Scan# 1687
Delta R.T. -0.001 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

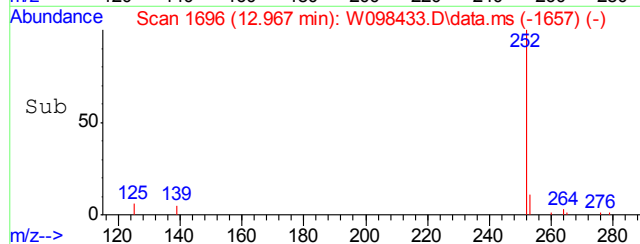
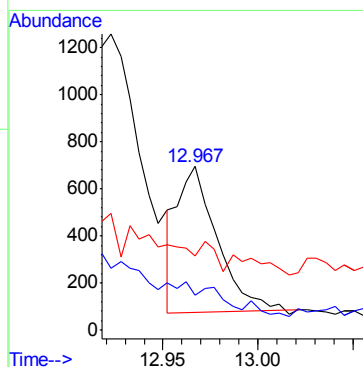
Tgt Ion:	252	Resp:	2498
Ion Ratio	Lower	Upper	
252	100		
253	13.7	0.0	53.3
125	19.3	0.0	46.8

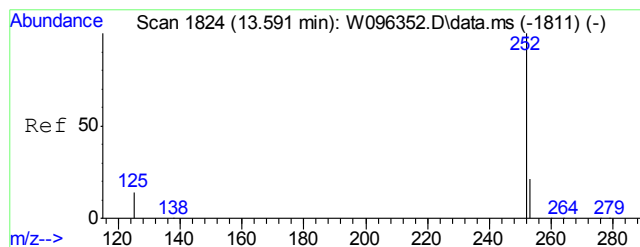


#27

Benzo[k]fluoranthene
Concen: 0.05 ppm
RT: 12.967 min Scan# 1696
Delta R.T. -0.006 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

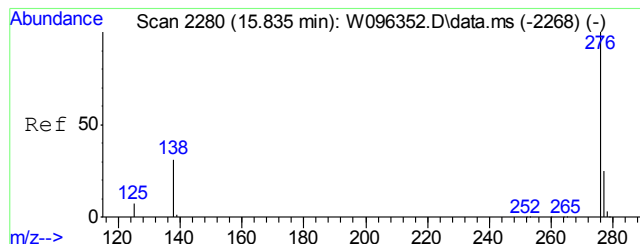
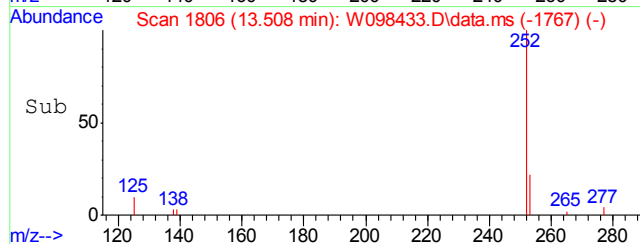
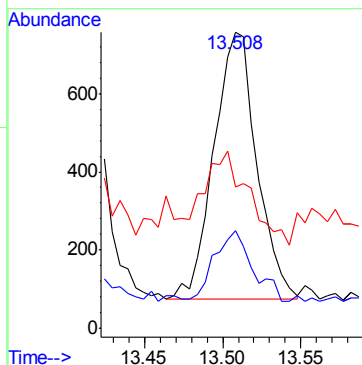
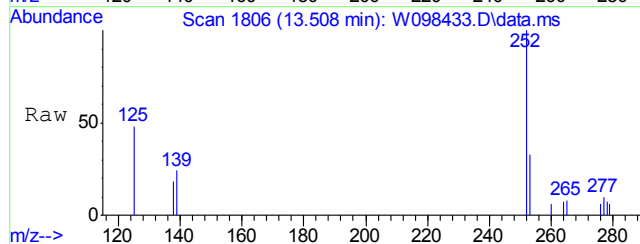
Tgt Ion:	252	Resp:	889
Ion Ratio	Lower	Upper	
252	100		
253	0.9	0.0	53.2
125	3.2	0.0	47.1





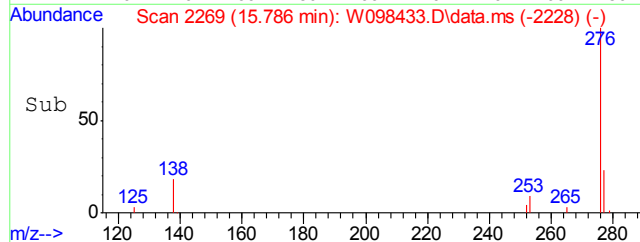
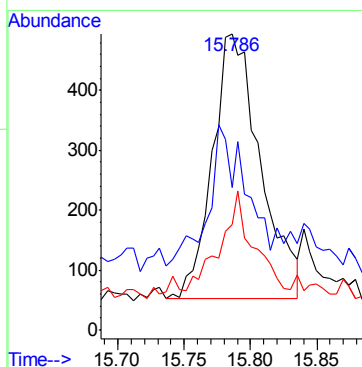
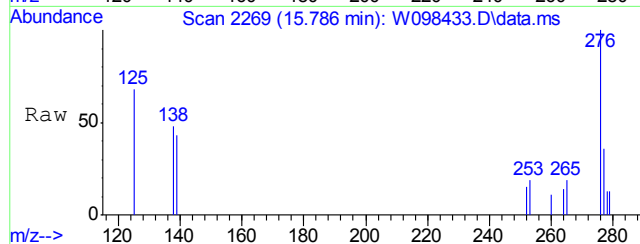
#28
Benzo[a]pyrene
Concen: 0.07 ppm
RT: 13.508 min Scan# 1806
Delta R.T. -0.010 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

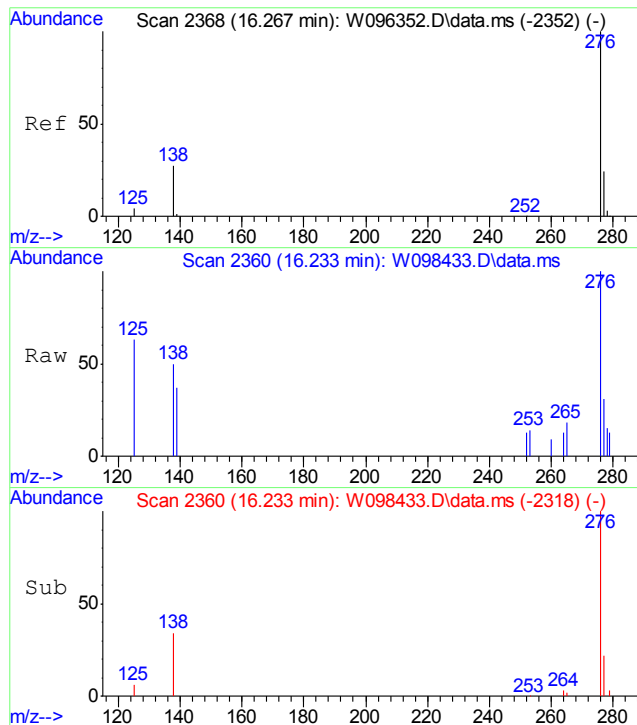
Tgt Ion: 252 Resp: 1298
Ion Ratio Lower Upper
252 100
253 24.7 0.0 53.3
125 6.8 0.0 47.6



#29
Indeno[1,2,3-cd]pyrene
Concen: 0.07 ppm
RT: 15.786 min Scan# 2269
Delta R.T. 0.001 min
Lab File: W098433.D
Acq: 30 Mar 17 4:36 pm

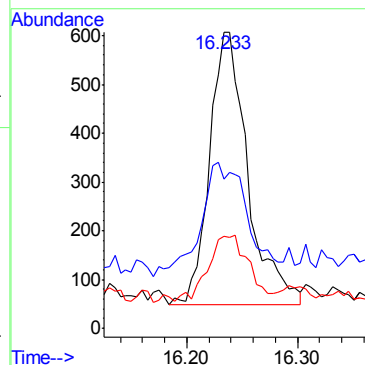
Tgt Ion: 276 Resp: 1112
Ion Ratio Lower Upper
276 100
138 27.2 6.4 66.4
277 24.1 0.0 54.9





#31
 Benzo[g,h,i]perylene
 Concen: 0.08 ppm
 RT: 16.233 min Scan# 2360
 Delta R.T. 0.007 min
 Lab File: W098433.D
 Acq: 30 Mar 17 4:36 pm

Tgt Ion:	276	Resp:	1336
Ion Ratio	Lower	Upper	
276	100		
138	32.2	7.9	67.9
277	20.8	0.0	55.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098337.D
 Acq On : 27 Mar 2017 7:22 pm
 Operator : fouads
 Sample : fa42100-5 Inst : MSBNA01
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Mar 28 11:18:15 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.527	136	128314	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	73252	4.00	ppm	-0.02
13) Phenanthrene-d10	8.395	188	108897	4.00	ppm	-0.02
20) Chrysene-d12	11.174	240	89397	4.00	ppm	-0.02
25) Perylene-d12	13.607	264	74766	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.914	82	49122	5.36	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	53.60%		
7) 2-Fluorobiphenyl	6.473	172	123843	5.50	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	55.00%		
14) 2,4,6-Tribromophenol	7.780	330	24613	12.25	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	61.25%		
22) Terphenyl-d14	9.871	244	91995	4.98	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	49.80%		
Target Compounds						
16) Phenanthrene	8.415	178	2576	0.08	ppm	94
19) Fluoranthene	9.492	202	7854	0.23	ppm	94
21) Pyrene	9.713	202	6787	0.17	ppm	96
23) Benzo[a]anthracene	11.159	228	2289	0.07	ppm	99
24) Chrysene	11.213	228	2949	0.10	ppm	99
26) Benzo[b]fluoranthene	12.914	252	4267	0.15	ppm	93
27) Benzo[k]fluoranthene	12.958	252	1499	0.06	ppm	90
28) Benzo[a]pyrene	13.499	252	2204	0.08	ppm	98
29) Indeno[1,2,3-cd]pyrene	15.782	276	1699	0.08	ppm	97
31) Benzo[g,h,i]perylene	16.224	276	1855	0.08	ppm	91

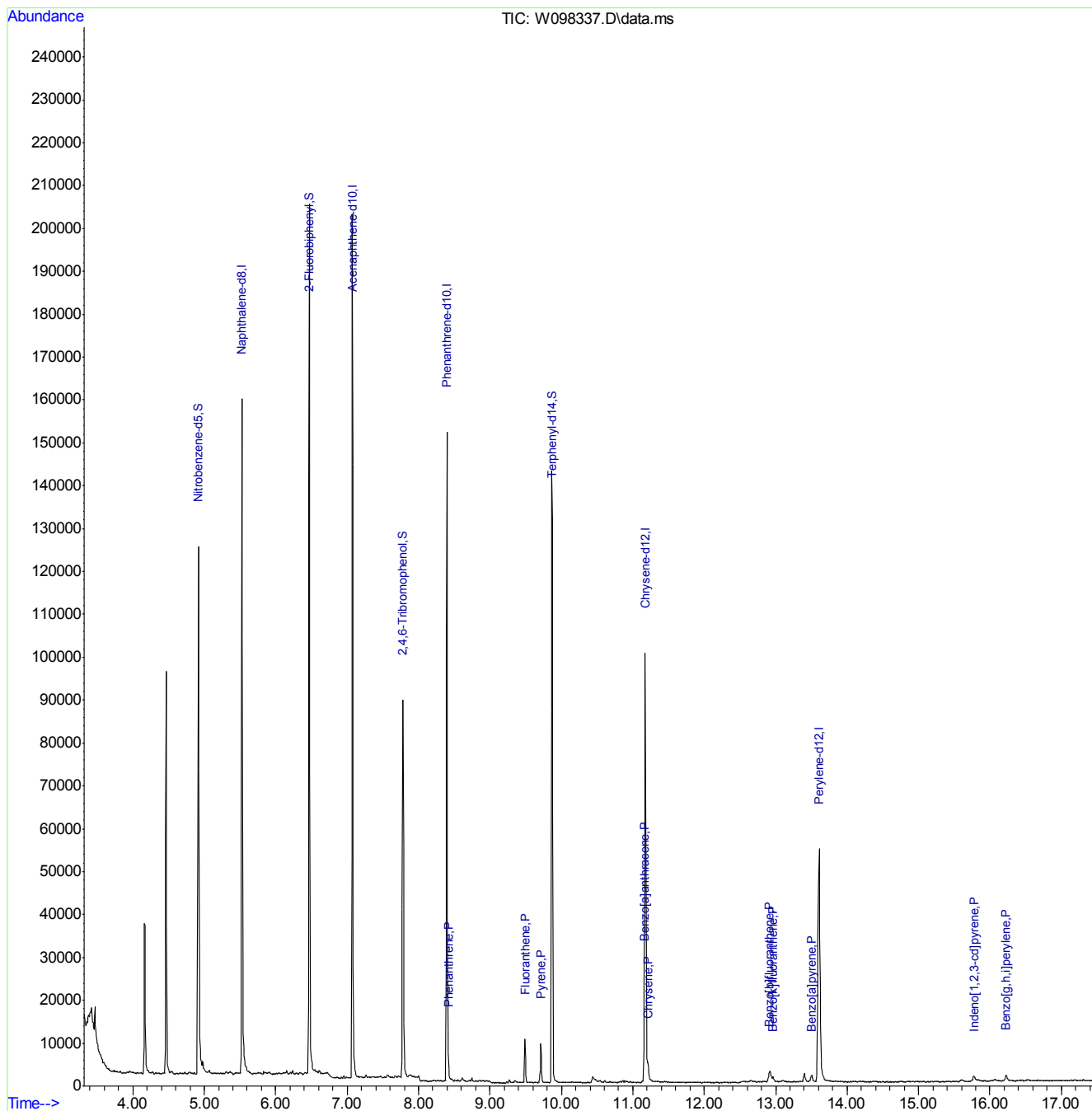
(#) = qualifier out of range (m) = manual integration (+) = signals summed

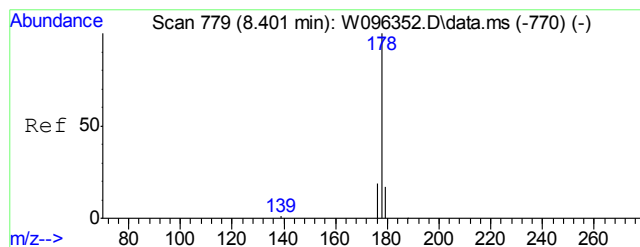
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098337.D
Acq On : 27 Mar 2017 7:22 pm
Operator : fouads
Sample : fa42100-5
Misc : op64340,sw4367,14.7,,,1,1,soil
ALS Vial : 27 Sample Multiplier: 1

Inst : MSBNA01

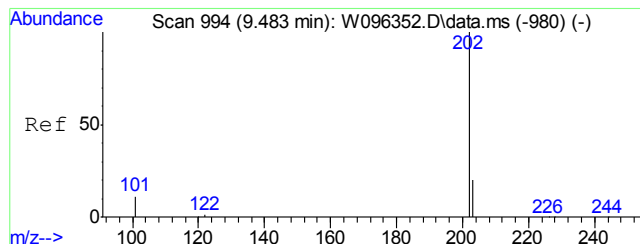
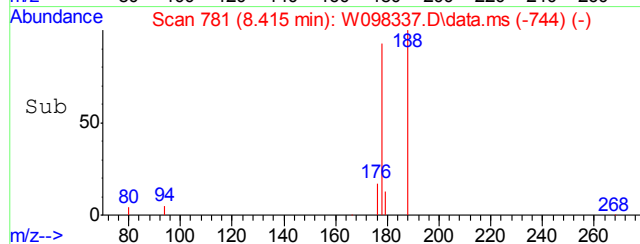
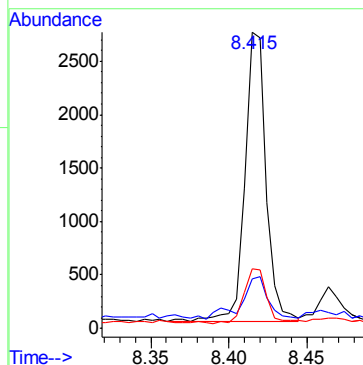
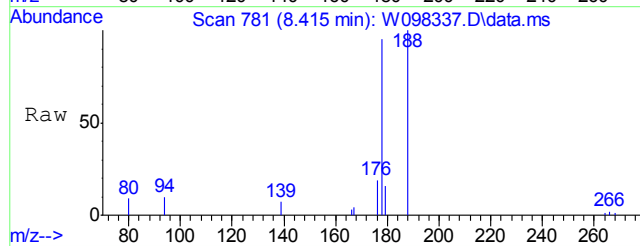
Quant Time: Mar 28 11:18:15 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration





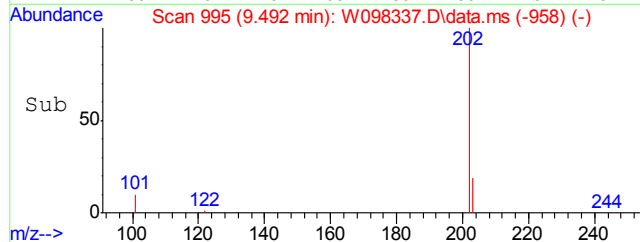
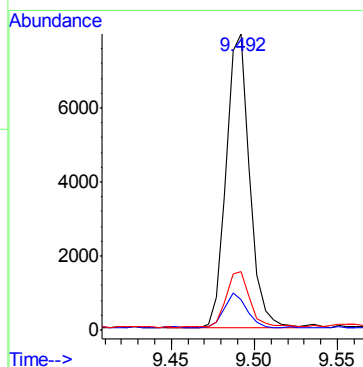
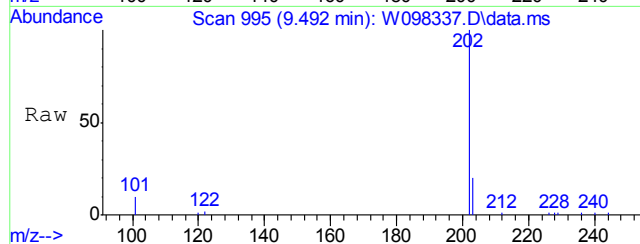
#16
Phenanthrene
Concen: 0.08 ppm
RT: 8.415 min Scan# 781
Delta R.T. -0.019 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

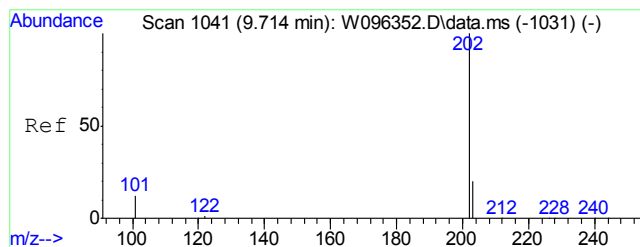
Tgt Ion	Ratio	Lower	Upper
178	100		
179	13.2	0.0	47.5
176	18.2	0.0	49.1



#19
Fluoranthene
Concen: 0.23 ppm
RT: 9.492 min Scan# 995
Delta R.T. -0.017 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

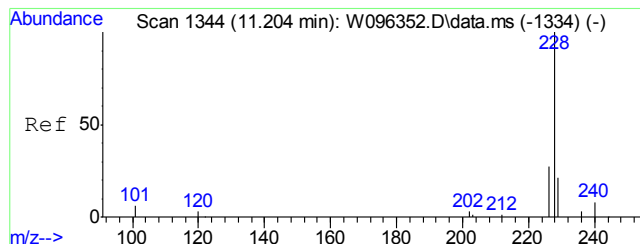
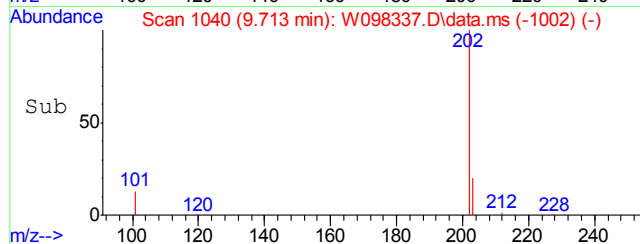
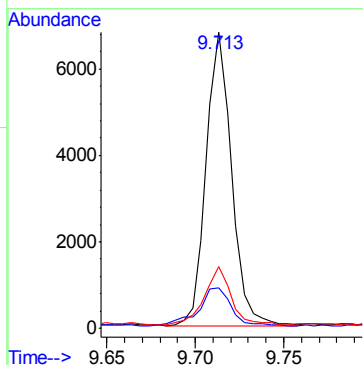
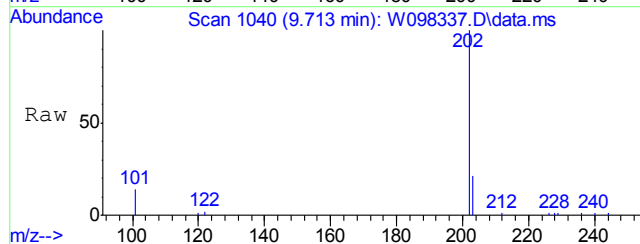
Tgt Ion	Ratio	Lower	Upper
202	100		
101	9.3	0.0	43.2
203	18.8	0.0	50.3





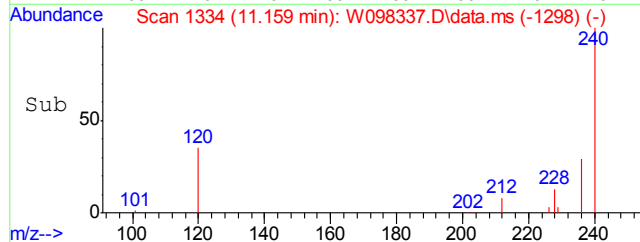
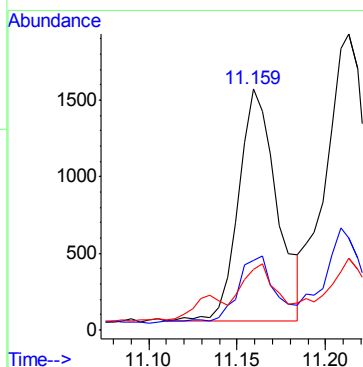
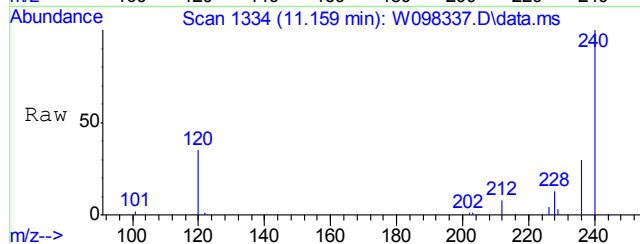
#21
Pyrene
Concen: 0.17 ppm
RT: 9.713 min Scan# 1040
Delta R.T. -0.014 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

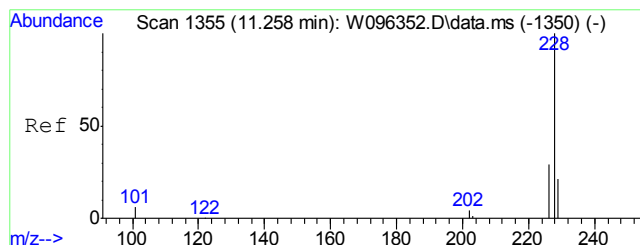
Tgt Ion	Ratio	Lower	Upper
202	100		
101	12.7	0.0	45.4
203	19.5	0.0	50.4



#23
Benzo[a]anthracene
Concen: 0.07 ppm
RT: 11.159 min Scan# 1334
Delta R.T. -0.024 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

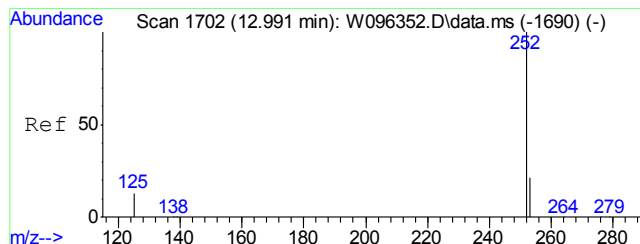
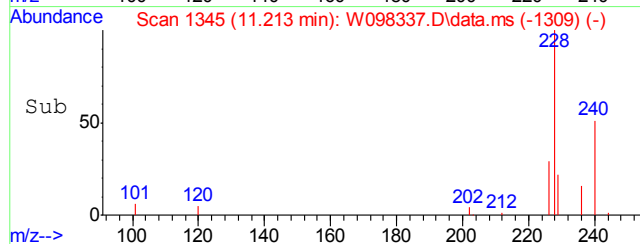
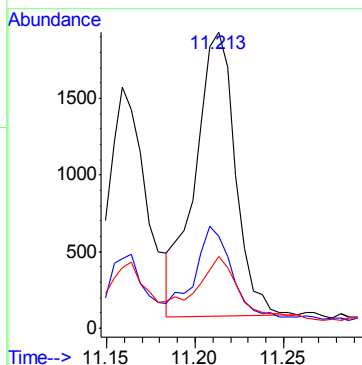
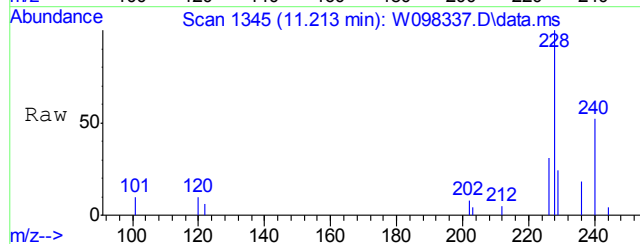
Tgt Ion	Ratio	Lower	Upper
228	100		
226	26.4	0.0	56.0
229	21.3	0.0	51.7





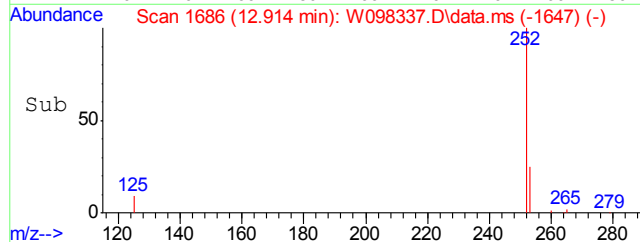
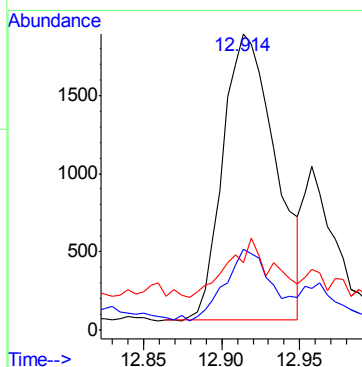
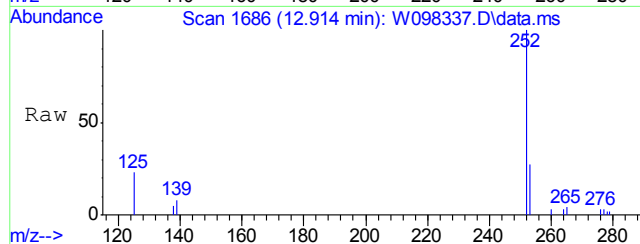
#24
Chrysene
Concen: 0.10 ppm
RT: 11.213 min Scan# 1345
Delta R.T. -0.024 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

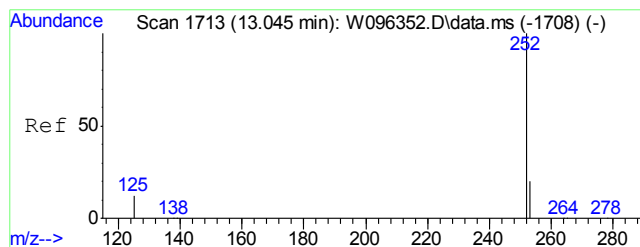
Tgt Ion	Ratio	Lower	Upper
228	100		
226	29.5	0.0	58.8
229	20.4	0.0	51.2



#26
Benzo[b]fluoranthene
Concen: 0.15 ppm
RT: 12.914 min Scan# 1686
Delta R.T. -0.010 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

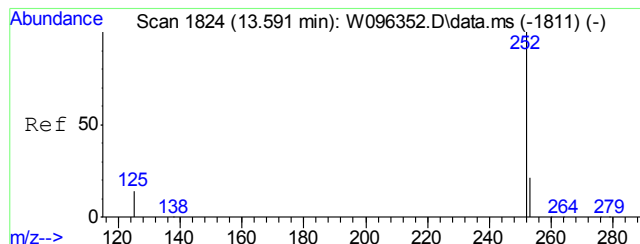
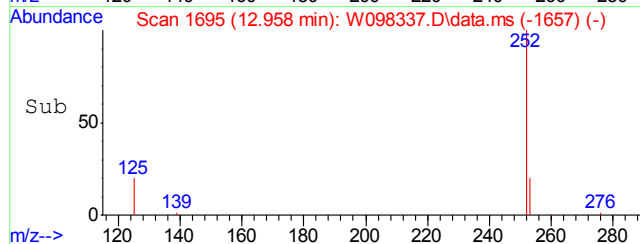
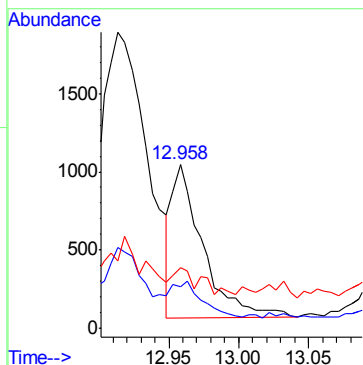
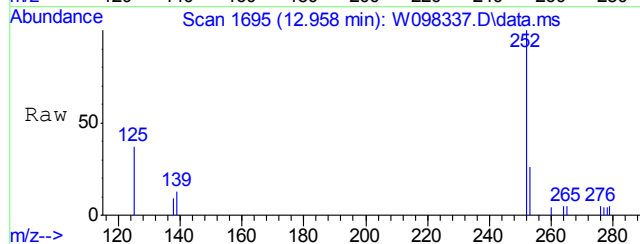
Tgt Ion	Ratio	Lower	Upper
252	100		
253	24.7	0.0	53.3
125	11.6	0.0	46.8





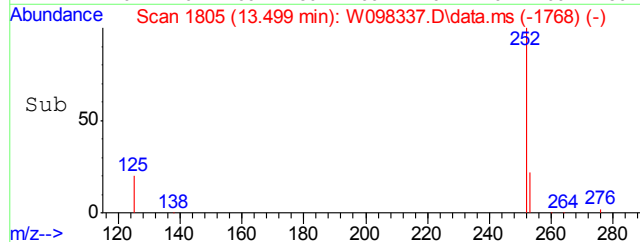
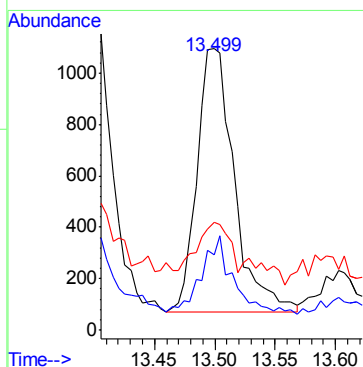
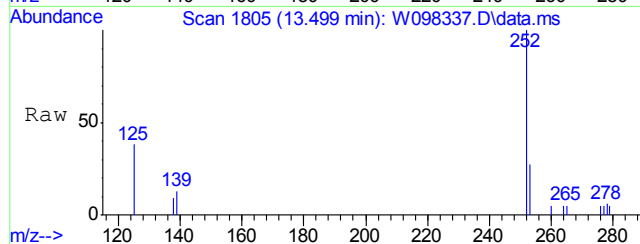
#27
Benzo[k]fluoranthene
Concen: 0.06 ppm
RT: 12.958 min Scan# 1695
Delta R.T. -0.015 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

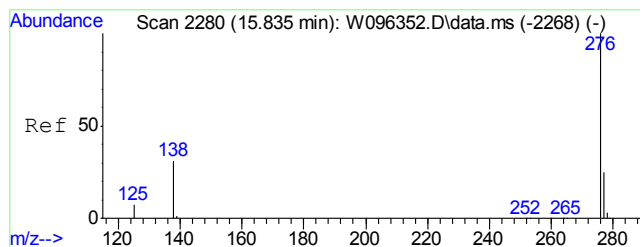
Tgt Ion	Ratio	Lower	Upper
252	100		
253	19.5	0.0	53.2
125	22.4	0.0	47.1



#28
Benzo[a]pyrene
Concen: 0.08 ppm
RT: 13.499 min Scan# 1805
Delta R.T. -0.019 min
Lab File: W098337.D
Acq: 27 Mar 17 7:22 pm

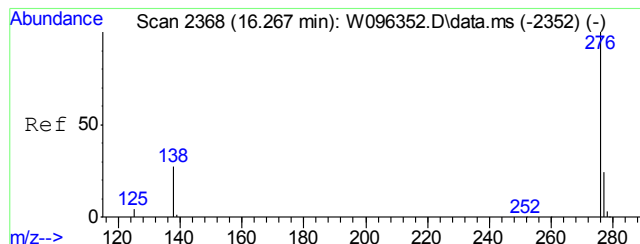
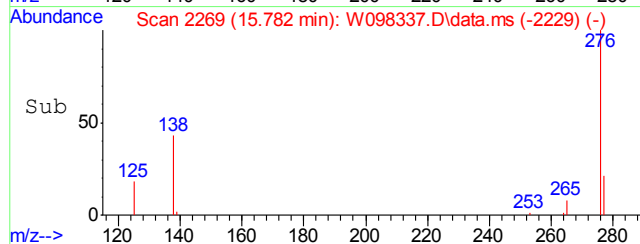
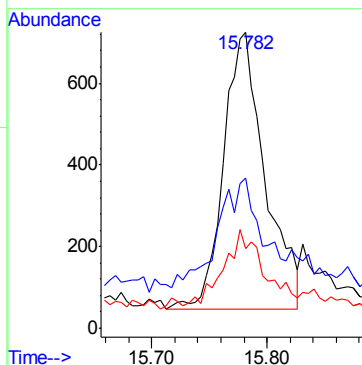
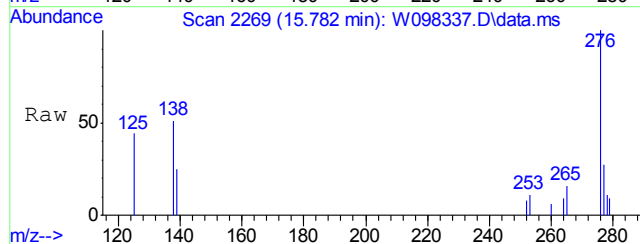
Tgt Ion	Ratio	Lower	Upper
252	100		
253	22.2	0.0	53.3
125	17.1	0.0	47.6





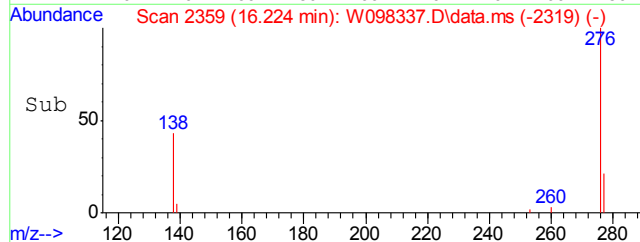
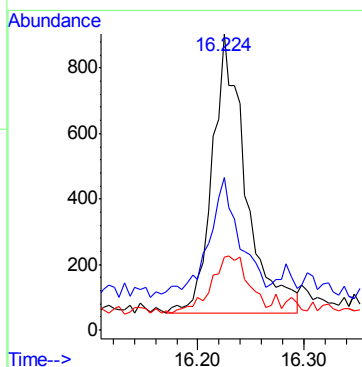
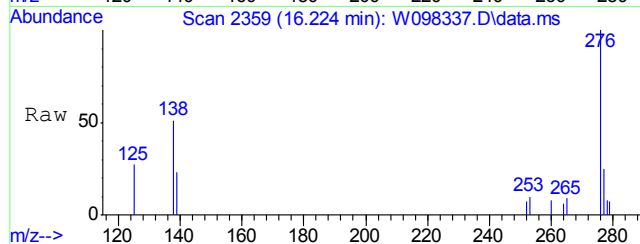
#29
 Indeno[1,2,3-cd]pyrene
 Concen: 0.08 ppm
 RT: 15.782 min Scan# 2269
 Delta R.T. -0.003 min
 Lab File: W098337.D
 Acq: 27 Mar 17 7:22 pm

Tgt Ion:	276	Resp:	1699
Ion Ratio	Lower	Upper	
276	100		
138	36.4	6.4	66.4
277	20.8	0.0	54.9



#31
 Benzo[g,h,i]perylene
 Concen: 0.08 ppm
 RT: 16.224 min Scan# 2359
 Delta R.T. -0.002 min
 Lab File: W098337.D
 Acq: 27 Mar 17 7:22 pm

Tgt Ion:	276	Resp:	1855
Ion Ratio	Lower	Upper	
276	100		
138	41.8	7.9	67.9
277	18.6	0.0	55.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098320.D
Acq On : 27 Mar 2017 12:55 pm
Operator : fouads
Sample : op64340-mb Inst : MSBNA01
Misc : op64340,sw4367,15.0,,,1,1,soil
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 27 14:21:08 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.529	136	126525	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	70460	4.00	ppm	-0.02
13) Phenanthrene-d10	8.395	188	107550	4.00	ppm	-0.02
20) Chrysene-d12	11.174	240	85501	4.00	ppm	-0.02
25) Perylene-d12	13.602	264	69797	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.916	82	45346	5.02	ppm	-0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	50.20%		
7) 2-Fluorobiphenyl	6.474	172	111165	5.13	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	51.30%		
14) 2,4,6-Tribromophenol	7.780	330	22031	11.10	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	55.50%		
22) Terphenyl-d14	9.866	244	81874	4.63	ppm	-0.02
Spiked Amount 10.000	Range 45 - 119		Recovery =	46.30%		

Target Compounds Qvalue

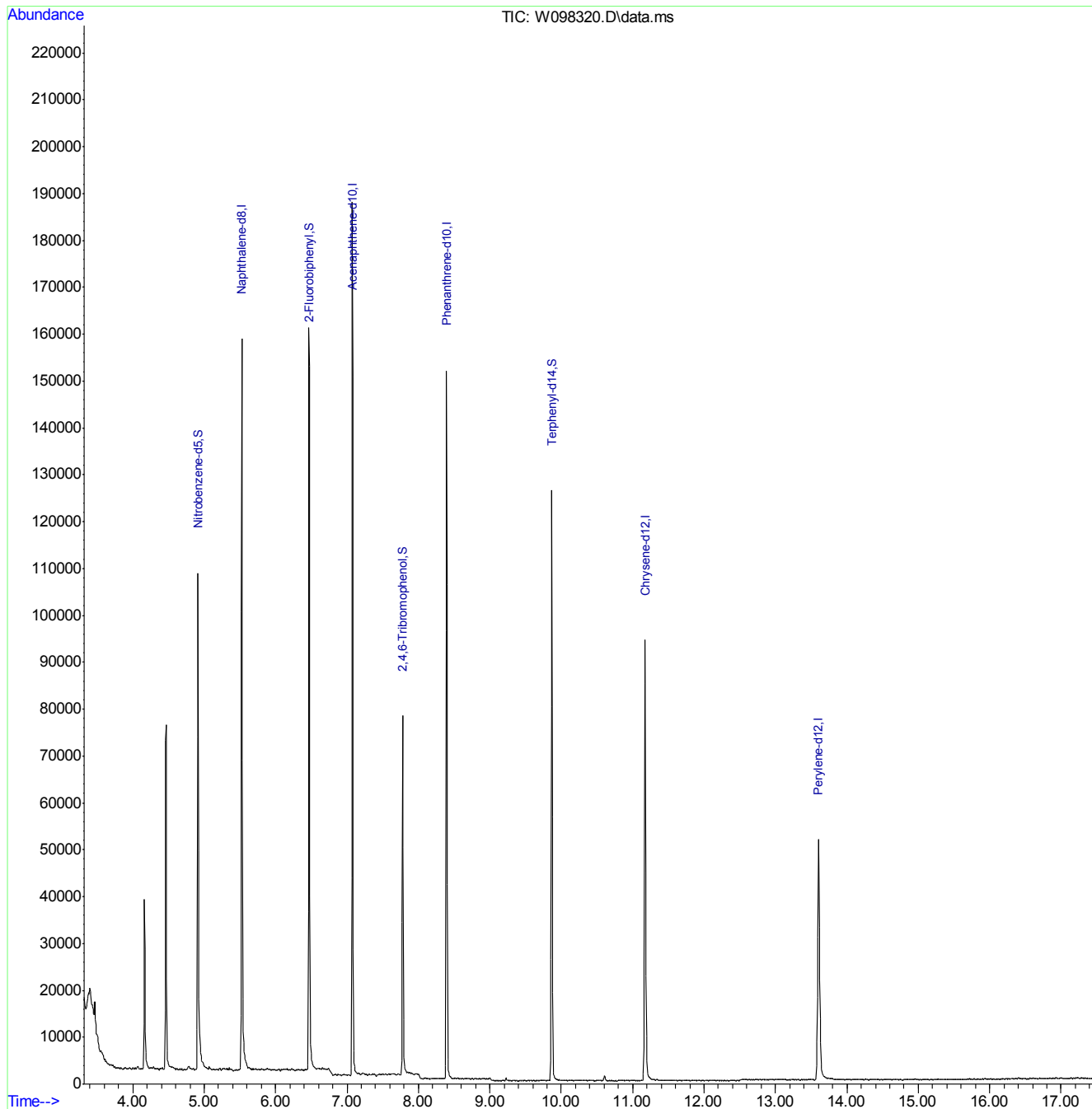
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098320.D
Acq On : 27 Mar 2017 12:55 pm
Operator : fouads
Sample : op64340-mb
Misc : op64340,sw4367,15.0,,,1,1,soil
ALS Vial : 10 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 14:21:08 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098321.D
 Acq On : 27 Mar 2017 1:18 pm
 Operator : foudas
 Sample : op64340-bs
 Misc : op64340,sw4367,15.0,,,1,1,soil
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 14:21:10 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.529	136	126840	4.00	ppm	-0.01
6) Acenaphthene-d10	7.073	164	69001	4.00	ppm	-0.02
13) Phenanthrene-d10	8.394	188	106870	4.00	ppm	-0.02
20) Chrysene-d12	11.174	240	78155	4.00	ppm	-0.02
25) Perylene-d12	13.607	264	66891	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.916	82	56327	6.22	ppm	-0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	62.20%		
7) 2-Fluorobiphenyl	6.474	172	129840	6.14	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	61.40%		
14) 2,4,6-Tribromophenol	7.780	330	25150	12.75	ppm	-0.02
Spiked Amount 20.000	Range 42 - 108		Recovery =	63.75%		
22) Terphenyl-d14	9.870	244	86993	5.38	ppm	-0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	53.80%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.548	128	151656	4.93	ppm	99
4) 2-Methylnaphthalene	6.148	142	108676	4.78	ppm	88
5) 1-Methylnaphthalene	6.239	142	105170	5.09	ppm	94
9) Acenaphthylene	6.948	152	180874	5.54	ppm	99
10) Acenaphthene	7.101	153	100117	5.27	ppm	96
11) Dibenzofuran	7.260	168	153735	6.06	ppm	80
12) Fluorene	7.565	166	133956	5.98	ppm	98
15) Pentachlorophenol	8.232	266	29913	11.00	ppm	99
16) Phenanthrene	8.419	178	164238	5.43	ppm	99
17) Anthracene	8.463	178	86604	2.62	ppm	99
18) Carbazole	8.606	167	93517	2.94	ppm	100
19) Fluoranthene	9.487	202	203238	6.20	ppm	98
21) Pyrene	9.713	202	199903	5.79	ppm	98
23) Benzo[a]anthracene	11.159	228	90501	2.98	ppm	99
24) Chrysene	11.213	228	81308	3.01	ppm	99
26) Benzo[b]fluoranthene	12.908	252	74350	2.99	ppm	99
27) Benzo[k]fluoranthene	12.958	252	74986	3.13	ppm	100
28) Benzo[a]pyrene	13.499	252	68478	2.89	ppm	98
29) Indeno[1,2,3-cd]pyrene	15.771	276	51247	2.63	ppm	97
30) Dibenz[a,h]anthracene	15.830	278	46752	2.52	ppm	100
31) Benzo[g,h,i]perylene	16.224	276	61064	2.77	ppm	98

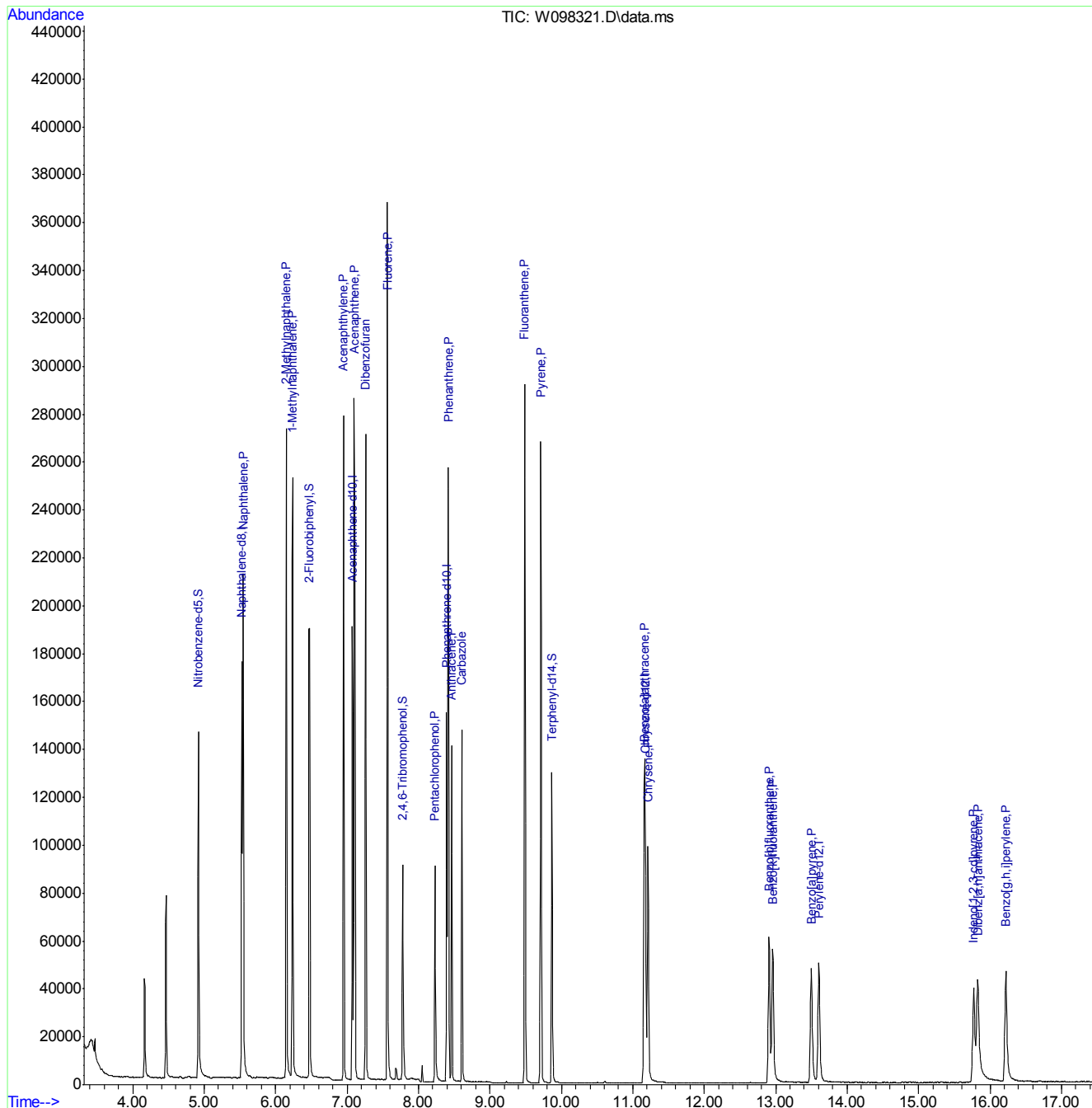
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098321.D
Acq On : 27 Mar 2017 1:18 pm
Operator : fouads
Sample : op64340-bs
Misc : op64340,sw4367,15.0,,,1,1,soil
ALS Vial : 11 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 14:21:10 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098335.D
 Acq On : 27 Mar 2017 6:36 pm
 Operator : foudas
 Sample : op64340-ms2
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 25 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:10 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	120032	4.00	ppm	-0.01
6) Acenaphthene-d10	7.079	164	62072	4.00	ppm	-0.01
13) Phenanthrene-d10	8.396	188	96487	4.00	ppm	-0.02
20) Chrysene-d12	11.175	240	75885	4.00	ppm	-0.02
25) Perylene-d12	13.606	264	62471	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	46505	5.43	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	54.30%		
7) 2-Fluorobiphenyl	6.473	172	104310	5.47	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	54.70%		
14) 2,4,6-Tribromophenol	7.786	330	20504	11.51	ppm	-0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	57.55%		
22) Terphenyl-d14	9.867	244	78303	4.99	ppm	-0.02
Spiked Amount 10.000	Range 45 - 119		Recovery =	49.90%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.547	128	126782	4.35	ppm	99
4) 2-Methylnaphthalene	6.154	142	94289	4.37	ppm	96
5) 1-Methylnaphthalene	6.238	142	87116	4.46	ppm	95
9) Acenaphthylene	6.947	152	150954	5.13	ppm	98
10) Acenaphthene	7.107	153	85555	5.00	ppm	98
11) Dibenzofuran	7.259	168	127846	5.59	ppm	# 73
12) Fluorene	7.564	166	115182	5.71	ppm	97
15) Pentachlorophenol	8.233	266	20876	8.55	ppm	98
16) Phenanthrene	8.415	178	141183	5.17	ppm	99
17) Anthracene	8.465	178	75502	2.53	ppm	99
18) Carbazole	8.607	167	79860	2.78	ppm	99
19) Fluoranthene	9.488	202	177652	6.00	ppm	98
21) Pyrene	9.709	202	180621	5.39	ppm	98
23) Benzo[a]anthracene	11.160	228	80111	2.72	ppm	99
24) Chrysene	11.209	228	75712	2.89	ppm	98
26) Benzo[b]fluoranthene	12.907	252	71247	3.07	ppm	99
27) Benzo[k]fluoranthene	12.956	252	64694	2.89	ppm	98
28) Benzo[a]pyrene	13.498	252	61938	2.80	ppm	98
29) Indeno[1,2,3-cd]pyrene	15.775	276	45749	2.52	ppm	96
30) Dibenz[a,h]anthracene	15.829	278	41193	2.37	ppm	98
31) Benzo[g,h,i]perylene	16.223	276	53821	2.62	ppm	98

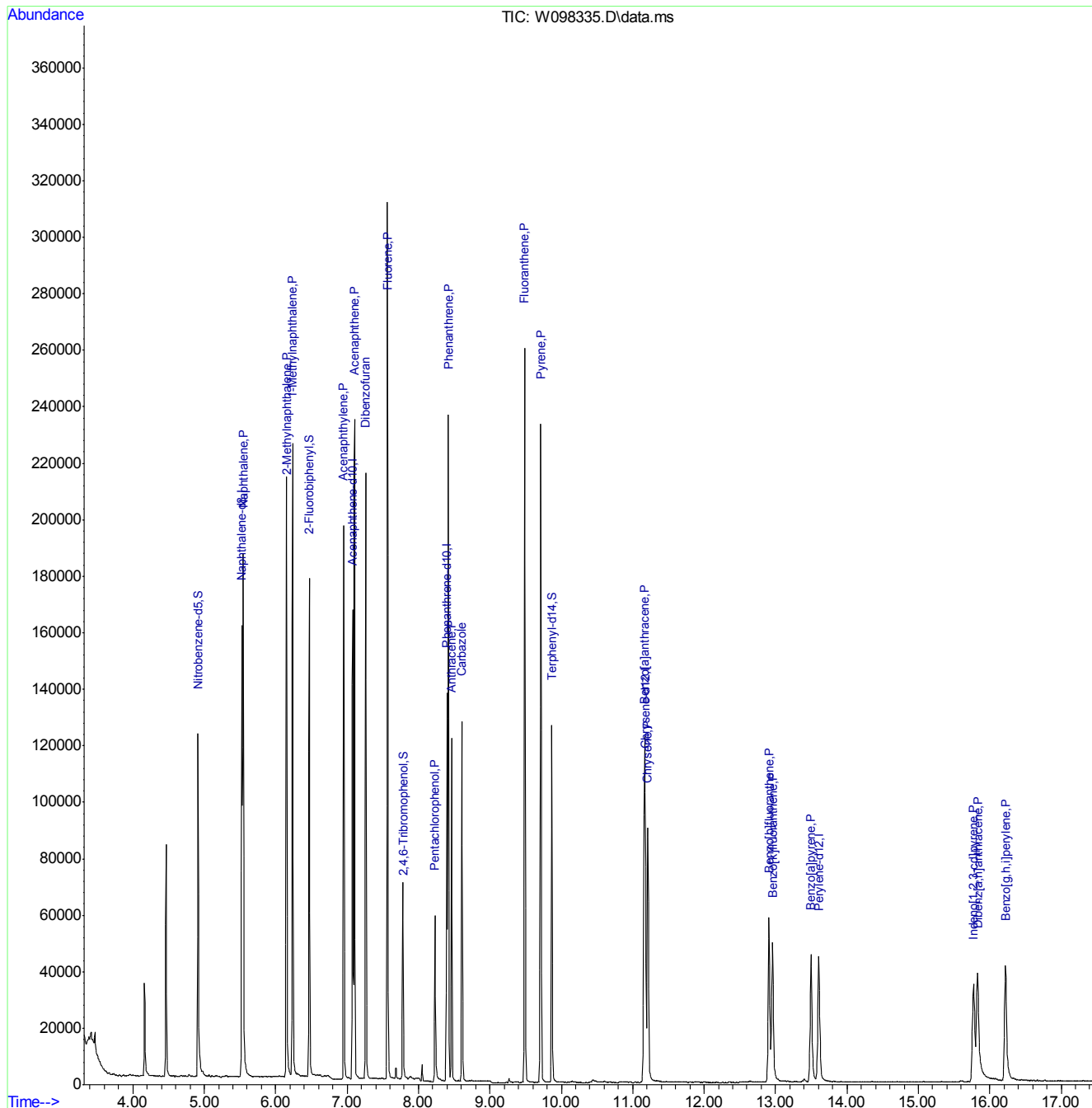
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098335.D
Acq On : 27 Mar 2017 6:36 pm
Operator : fouads
Sample : op64340-ms2
Misc : op64340,sw4367,14.7,,,1,1,soil
ALS Vial : 25 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:10 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098336.D
 Acq On : 27 Mar 2017 6:59 pm
 Operator : foudas
 Sample : op64340-msd2
 Misc : op64340,sw4367,14.7,,,1,1,soil
 ALS Vial : 26 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:12 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	125493	4.00	ppm	-0.01
6) Acenaphthene-d10	7.079	164	67133	4.00	ppm	-0.01
13) Phenanthrene-d10	8.396	188	101297	4.00	ppm	-0.02
20) Chrysene-d12	11.175	240	78596	4.00	ppm	-0.02
25) Perylene-d12	13.606	264	66925	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	48101	5.37	ppm	-0.02
Spiked Amount 10.000	Range 40	- 105	Recovery	=	53.70%	
7) 2-Fluorobiphenyl	6.473	172	110088	5.33	ppm	-0.02
Spiked Amount 10.000	Range 43	- 107	Recovery	=	53.30%	
14) 2,4,6-Tribromophenol	7.785	330	23124	12.37	ppm	-0.01
Spiked Amount 20.000	Range 42	- 108	Recovery	=	61.85%	
22) Terphenyl-d14	9.867	244	83835	5.16	ppm	-0.02
Spiked Amount 10.000	Range 45	- 119	Recovery	=	51.60%	
Target Compounds						
					Qvalue	
3) Naphthalene	5.548	128	129894	4.27	ppm	99
4) 2-Methylnaphthalene	6.154	142	99437	4.41	ppm	99
5) 1-Methylnaphthalene	6.239	142	92279	4.52	ppm	95
9) Acenaphthylene	6.947	152	157677	4.95	ppm	98
10) Acenaphthene	7.107	153	89283	4.82	ppm	98
11) Dibenzofuran	7.259	168	137129	5.54	ppm	# 70
12) Fluorene	7.564	166	114063	5.22	ppm	95
15) Pentachlorophenol	8.229	266	23670	9.22	ppm	95
16) Phenanthrene	8.416	178	153705	5.36	ppm	99
17) Anthracene	8.465	178	79038	2.52	ppm	98
18) Carbazole	8.608	167	86683	2.88	ppm	98
19) Fluoranthene	9.488	202	193151	6.22	ppm	97
21) Pyrene	9.714	202	188835	5.44	ppm	97
23) Benzo[a]anthracene	11.160	228	90208	2.95	ppm	99
24) Chrysene	11.209	228	78548	2.89	ppm	99
26) Benzo[b]fluoranthene	12.908	252	73691	2.97	ppm	99
27) Benzo[k]fluoranthene	12.957	252	74389	3.11	ppm	97
28) Benzo[a]pyrene	13.498	252	68572	2.89	ppm	98
29) Indeno[1,2,3-cd]pyrene	15.770	276	50827	2.61	ppm	96
30) Dibenz[a,h]anthracene	15.830	278	44092	2.37	ppm	97
31) Benzo[g,h,i]perylene	16.223	276	60689	2.76	ppm	98

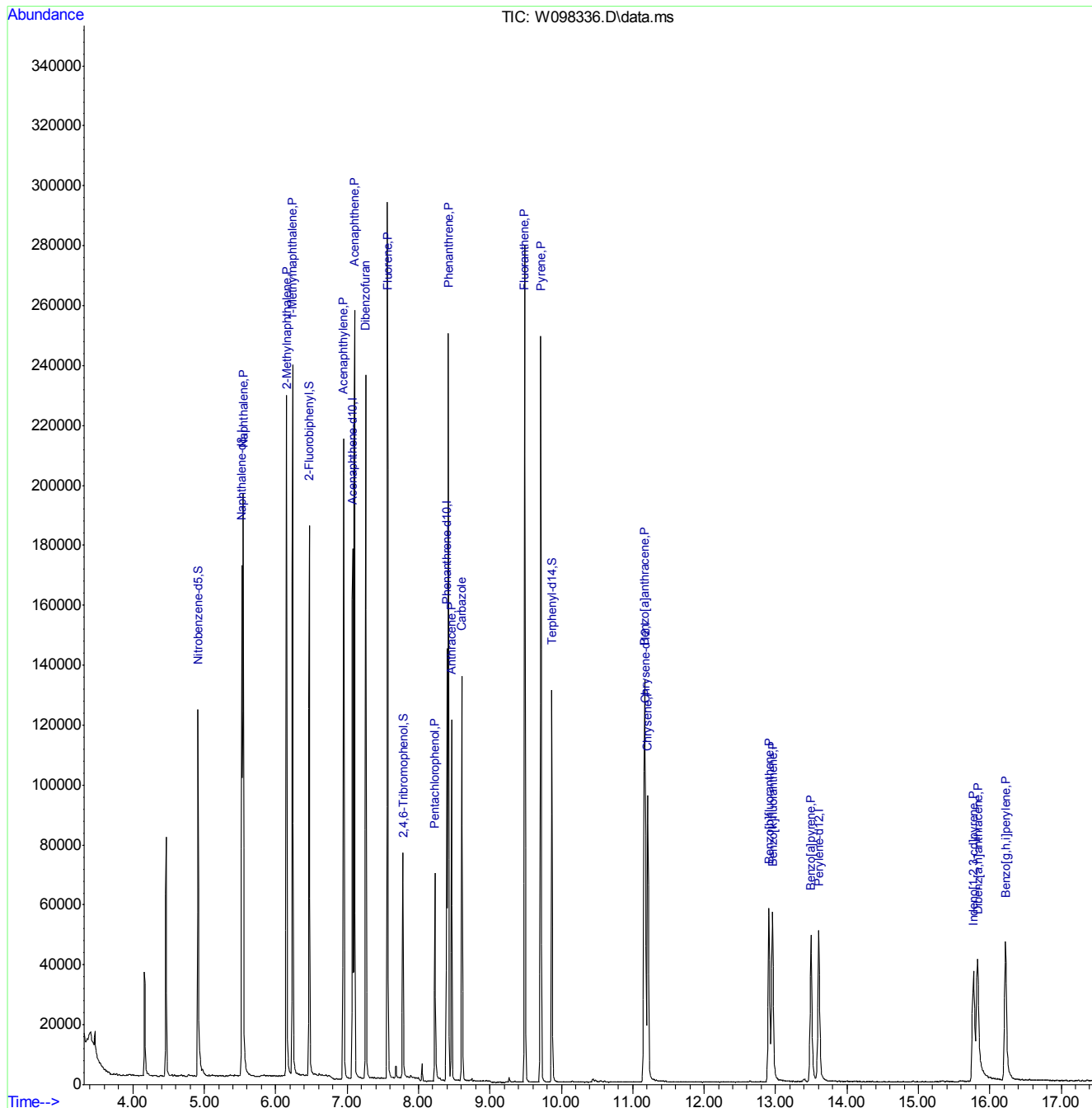
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098336.D
Acq On : 27 Mar 2017 6:59 pm
Operator : fouads
Sample : op64340-msd2
Misc : op64340,sw4367,14.7,,,1,1,soil
ALS Vial : 26 Sample Multiplier: 1

Inst : MSBNA01

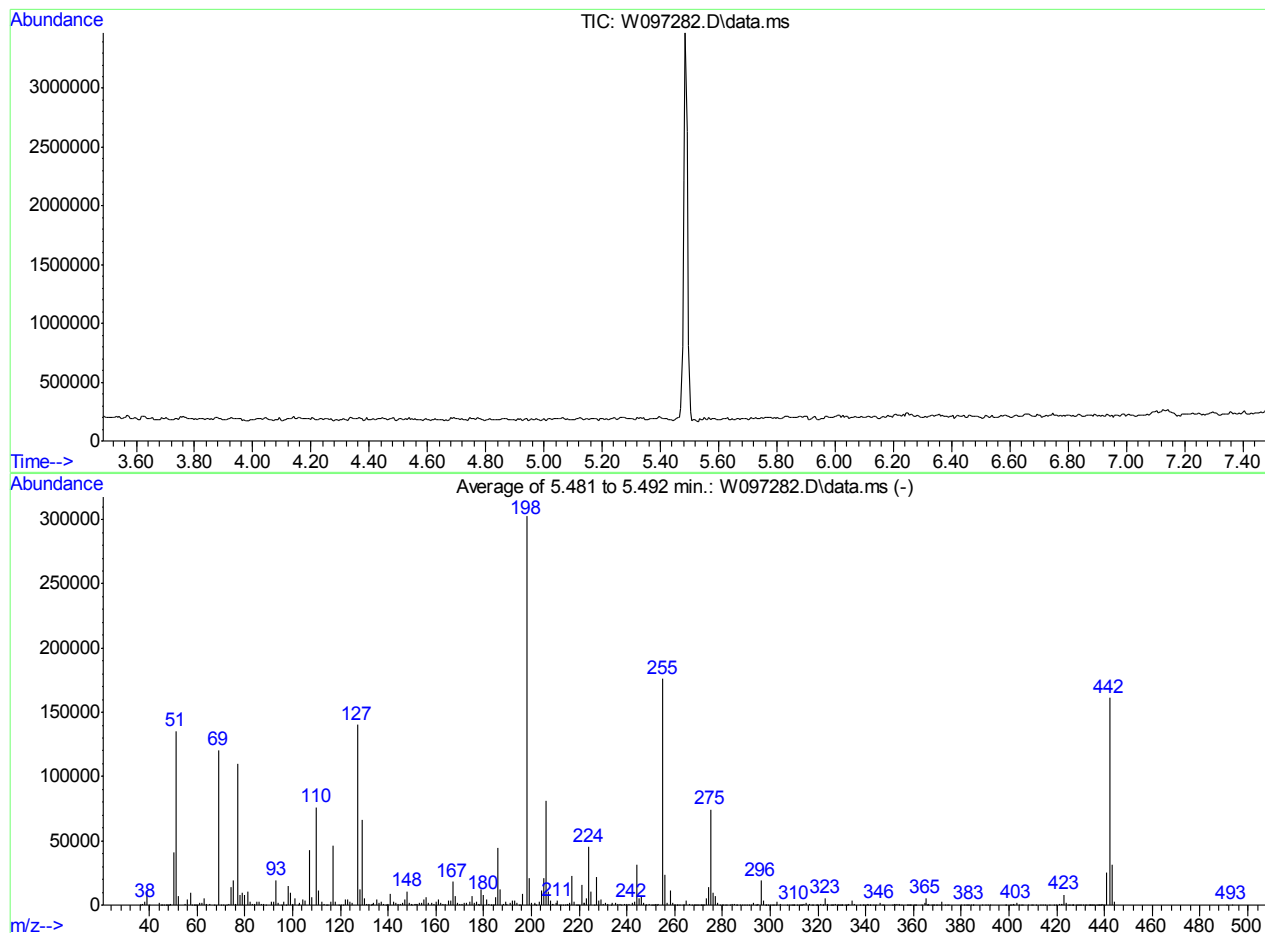
Quant Time: Mar 28 10:50:12 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



SW-846 Method 8270

Data File : C:\msdchem\1\DATA\SW4338\W097282.D Vial: 1
Acq On : 13 Feb 2017 6:34 pm Operator: fouads
Sample : dftpp Inst : MSBNA01
Misc : op63461,sw4338,15.0,,,1,1,soil Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp.m (RTE Integrator)
Title : Tune Evaluation



AutoFind: Scans 448, 449, 450; Background Corrected with Scan 440

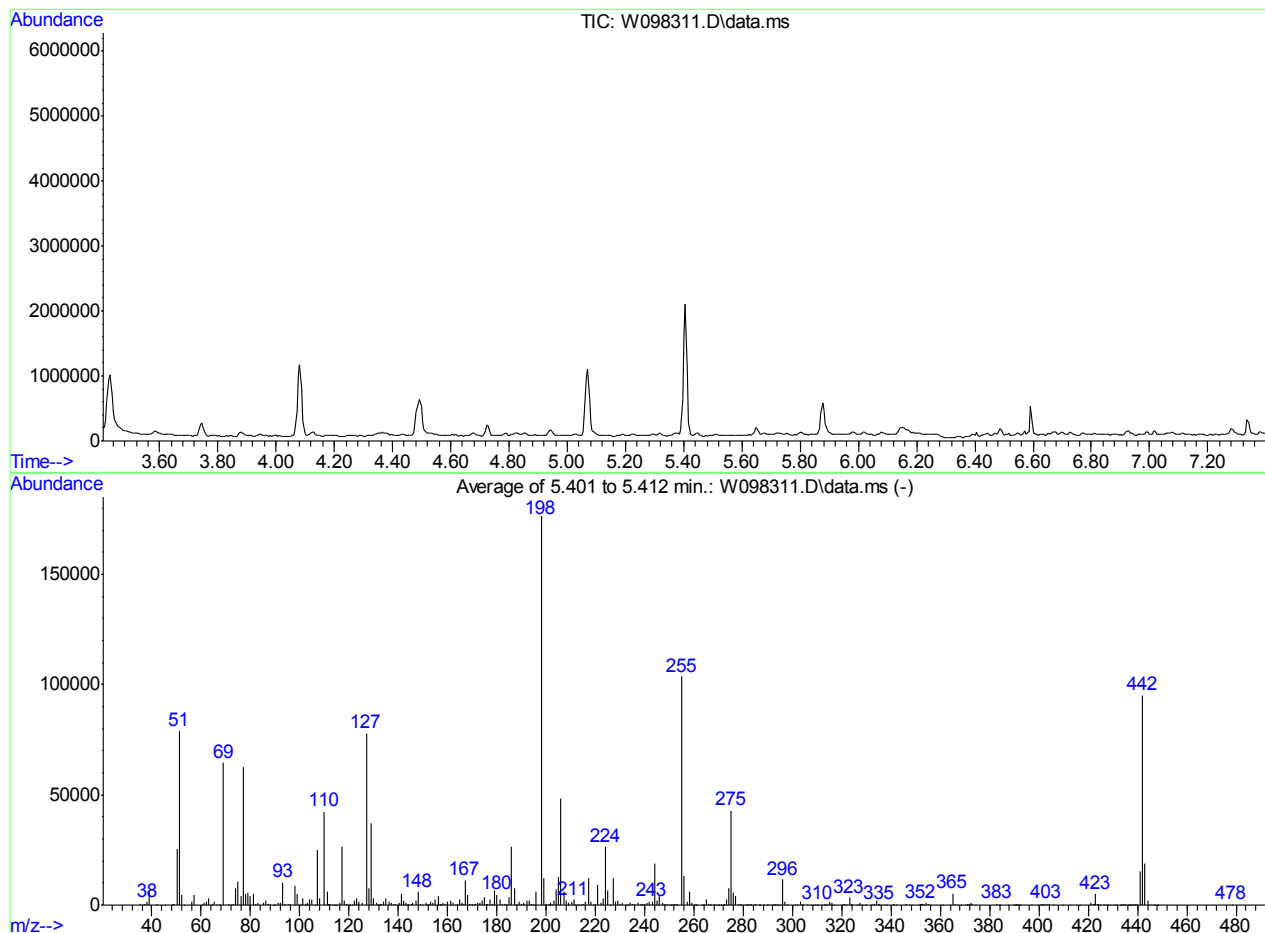
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
51	198	30	60	44.8	135535	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	39.9	120820	PASS
70	69	0.00	2	0.2	290	PASS
127	198	40	60	46.4	140221	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	302442	PASS
199	198	5	9	6.9	20920	PASS
275	198	10	30	24.6	74467	PASS
365	198	1	100	1.9	5711	PASS
441	443	0.01	100	82.5	25594	PASS
442	198	40	100	53.3	161074	PASS
443	442	17	23	19.3	31036	PASS

W097282.D dftpp.m Tue Feb 14 11:03:56 2017

SW-846 Method 8270

Data File : C:\msdchem\1\DATA\SW4367\W098311.D Vial: 1
 Acq On : 27 Mar 2017 9:35 am Operator: fouads
 Sample : dftpp Inst : MSBNA01
 Misc : op64229,sw4367,15.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp.m (RTE Integrator)
 Title : Tune Evaluation



AutoFind: Scans 433, 434, 435; Background Corrected with Scan 426

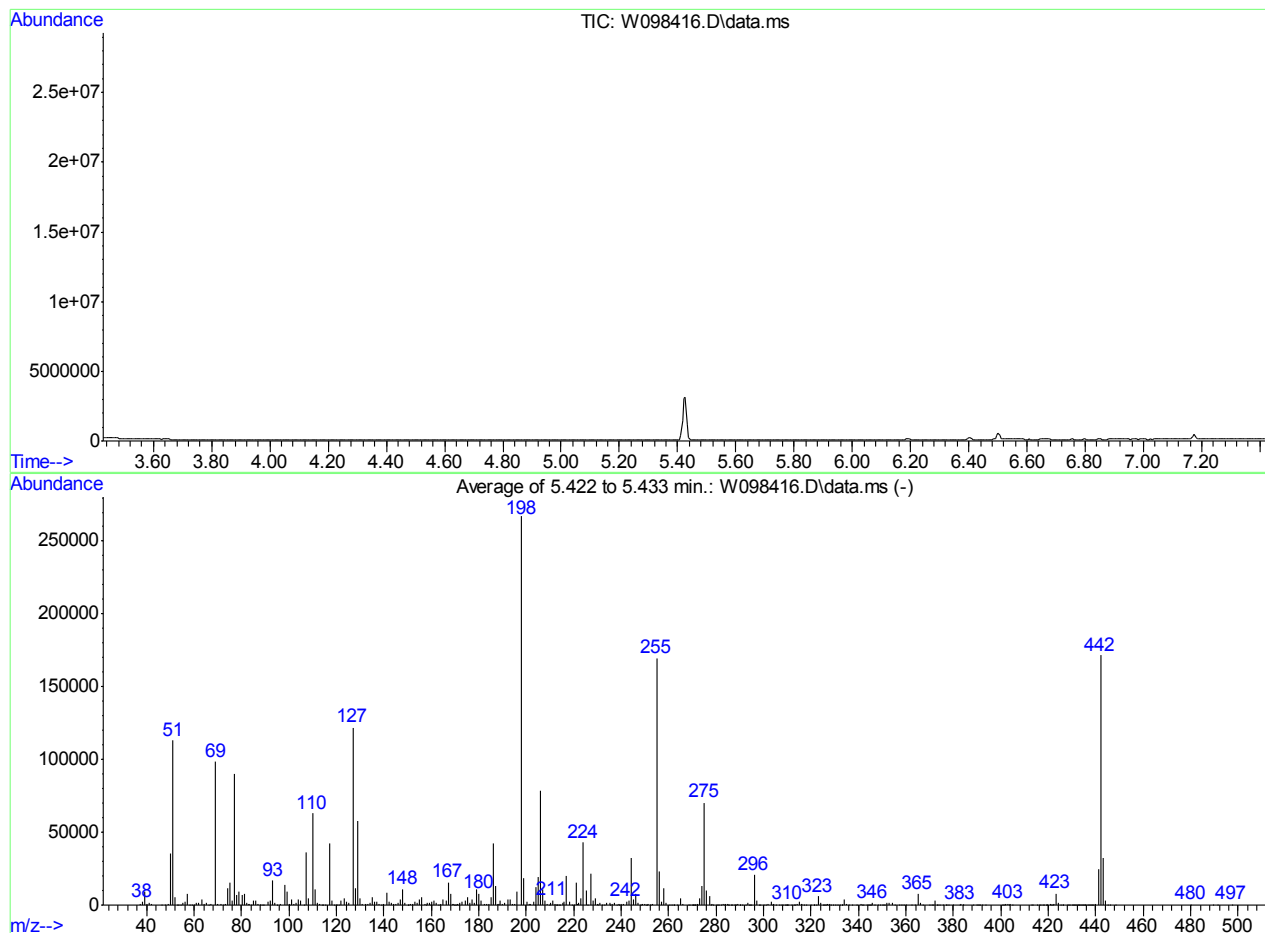
Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
51	198	30	60	44.9	79054	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.5	64403	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	44.2	77807	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	176210	PASS
199	198	5	9	7.0	12343	PASS
275	198	10	30	24.3	42866	PASS
365	198	1	100	2.9	5116	PASS
441	443	0.01	100	80.6	15192	PASS
442	198	40	100	54.0	95234	PASS
443	442	17	23	19.8	18843	PASS

W098311.D dftpp.m Tue Mar 28 11:26:27 2017

SW-846 Method 8270

Data File : C:\msdchem\1\DATA\SW4370\W098416.D Vial: 1
 Acq On : 30 Mar 2017 8:30 am Operator: fouads
 Sample : dftpp Inst : MSBNA01
 Misc : op64229,sw4370,15.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\msdchem\1\METHODS\dftpp.m (RTE Integrator)
 Title : Tune Evaluation



AutoFind: Scans 437, 438, 439; Background Corrected with Scan 428

Target	Rel. to	Lower	Upper	Rel.	Raw	Result
Mass	Mass	Limit%	Limit%	Abn%	Abn	Pass/Fail
51	198	30	60	42.3	112911	PASS
68	69	0.00	2	0.0	0	PASS
69	198	0.00	100	36.8	98262	PASS
70	69	0.00	2	0.6	595	PASS
127	198	40	60	45.7	122063	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	267039	PASS
199	198	5	9	7.0	18757	PASS
275	198	10	30	26.3	70312	PASS
365	198	1	100	2.8	7475	PASS
441	443	0.01	100	75.7	24616	PASS
442	198	40	100	64.3	171690	PASS
443	442	17	23	18.9	32528	PASS

W098416.D dftpp.m Thu Mar 30 16:24:29 2017

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097284.D
 Acq On : 13 Feb 2017 7:10 pm
 Operator : fouads
 Sample : ic4338-1
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 100 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:29 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.587	136	155507	4.00	ppm	0.00
6) Acenaphthene-d10	7.135	164	79818	4.00	ppm	0.00
13) Phenanthrene-d10	8.460	188	116249	4.00	ppm	0.00
20) Chrysene-d12	11.268	240	95805	4.00	ppm	0.00
25) Perylene-d12	13.724	264	86945	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.967	82	4853	0.29	ppm	0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	2.90%#		
7) 2-Fluorobiphenyl	6.525	172	14072	0.62	ppm	0.00
Spiked Amount 10.000	Range 43 - 107		Recovery =	6.20%#		
14) 2,4,6-Tribromophenol	7.841	330	1870	0.86	ppm	0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	4.30%#		
22) Terphenyl-d14	9.940	244	9682	0.47	ppm	0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	4.70%#		
Target Compounds						
					Qvalue	
3) Naphthalene	5.606	128	18391	0.48	ppm	96
4) 2-Methylnaphthalene	6.212	142	13530	0.48	ppm	91
5) 1-Methylnaphthalene	6.297	142	12176	0.51	ppm	92
8) 1,1'-Biphenyl	6.617	154	15349	0.61	ppm	97
9) Acenaphthylene	7.010	152	22540	0.66	ppm	97
10) Acenaphthene	7.163	153	11890	0.57	ppm	89
11) Dibenzofuran	7.322	168	16849	0.60	ppm	90
12) Fluorene	7.627	166	14420	0.56	ppm	97
15) Pentachlorophenol	8.297	266	1564	0.51	ppm	87
16) Phenanthrene	8.480	178	16856	0.57	ppm	96
17) Anthracene	8.524	178	8993	0.26	ppm	96
18) Carbazole	8.667	167	8300	0.26	ppm	96
19) Fluoranthene	9.557	202	20573	0.53	ppm	95
21) Pyrene	9.783	202	21261	0.50	ppm	95
23) Benzo[a]anthracene	11.253	228	8840	0.23	ppm	96
24) Chrysene	11.308	228	7507	0.22	ppm	96
26) Benzo[b]fluoranthene	13.021	252	7800	0.24	ppm	91
27) Benzo[k]fluoranthene	13.070	252	7798	0.25	ppm	89
28) Benzo[a]pyrene	13.611	252	7085	0.23	ppm	94
29) Indeno[1,2,3-cd]pyrene	15.889	276	5713	0.24	ppm	93
30) Dibenz[a,h]anthracene	15.953	278	5594	0.25	ppm	89
31) Benzo[g,h,i]perylene	16.332	276	6953	0.24	ppm	88

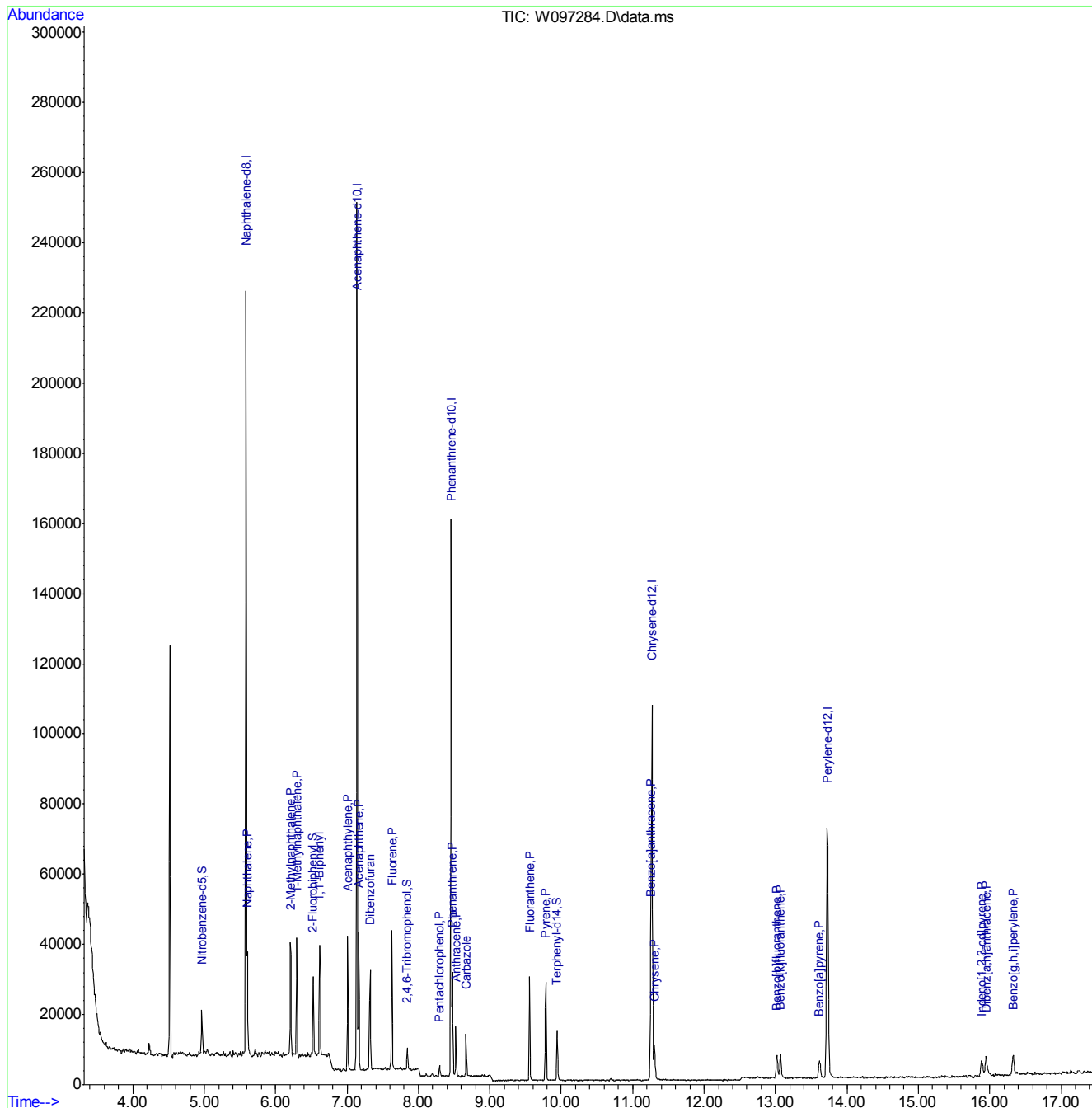
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097284.D
Acq On : 13 Feb 2017 7:10 pm
Operator : fouads
Sample : ic4338-1
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 100 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:29 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097285.D
 Acq On : 13 Feb 2017 7:33 pm
 Operator : fouads
 Sample : ic4338-2
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 99 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:31 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.588	136	134927	4.00	ppm	0.00
6) Acenaphthene-d10	7.136	164	80758	4.00	ppm	0.00
13) Phenanthrene-d10	8.459	188	133515	4.00	ppm	0.00
20) Chrysene-d12	11.267	240	112040	4.00	ppm	-0.01
25) Perylene-d12	13.729	264	93949	4.00	ppm	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.968	82	20343	1.39	ppm	0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	13.90%#		
7) 2-Fluorobiphenyl	6.527	172	56085	2.44	ppm	0.00
Spiked Amount 10.000	Range 43 - 107		Recovery =	24.40%#		
14) 2,4,6-Tribromophenol	7.842	330	9944	3.99	ppm	0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	19.95%#		
22) Terphenyl-d14	9.944	244	50451	2.12	ppm	0.02
Spiked Amount 10.000	Range 45 - 119		Recovery =	21.20%#		
Target Compounds						
					Qvalue	
3) Naphthalene	5.607	128	73820	2.23	ppm	98
4) 2-Methylnaphthalene	6.207	142	58230	2.44	ppm	95
5) 1-Methylnaphthalene	6.298	142	50113	2.44	ppm	96
8) 1,1'-Biphenyl	6.618	154	57135	2.23	ppm	98
9) Acenaphthylene	7.011	152	91730	2.66	ppm	98
10) Acenaphthene	7.163	153	50529	2.39	ppm	93
11) Dibenzofuran	7.323	168	73606	2.62	ppm	97
12) Fluorene	7.627	166	63721	2.48	ppm	100
15) Pentachlorophenol	8.291	266	11395	3.23	ppm	94
16) Phenanthrene	8.478	178	81262	2.39	ppm	98
17) Anthracene	8.523	178	45605	1.16	ppm	98
18) Carbazole	8.665	167	44324	1.22	ppm	96
19) Fluoranthene	9.555	202	104214	2.39	ppm	96
21) Pyrene	9.782	202	109654	2.23	ppm	97
23) Benzo[a]anthracene	11.252	228	45196	1.00	ppm	97
24) Chrysene	11.306	228	39380	0.99	ppm	96
26) Benzo[b]fluoranthene	13.021	252	39219	1.10	ppm	94
27) Benzo[k]fluoranthene	13.070	252	37838	1.12	ppm	96
28) Benzo[a]pyrene	13.616	252	37461	1.13	ppm	94
29) Indeno[1,2,3-cd]pyrene	15.884	276	28611	1.12	ppm	95
30) Dibenz[a,h]anthracene	15.953	278	27217	1.13	ppm	92
31) Benzo[g,h,i]perylene	16.327	276	31911	1.04	ppm	89

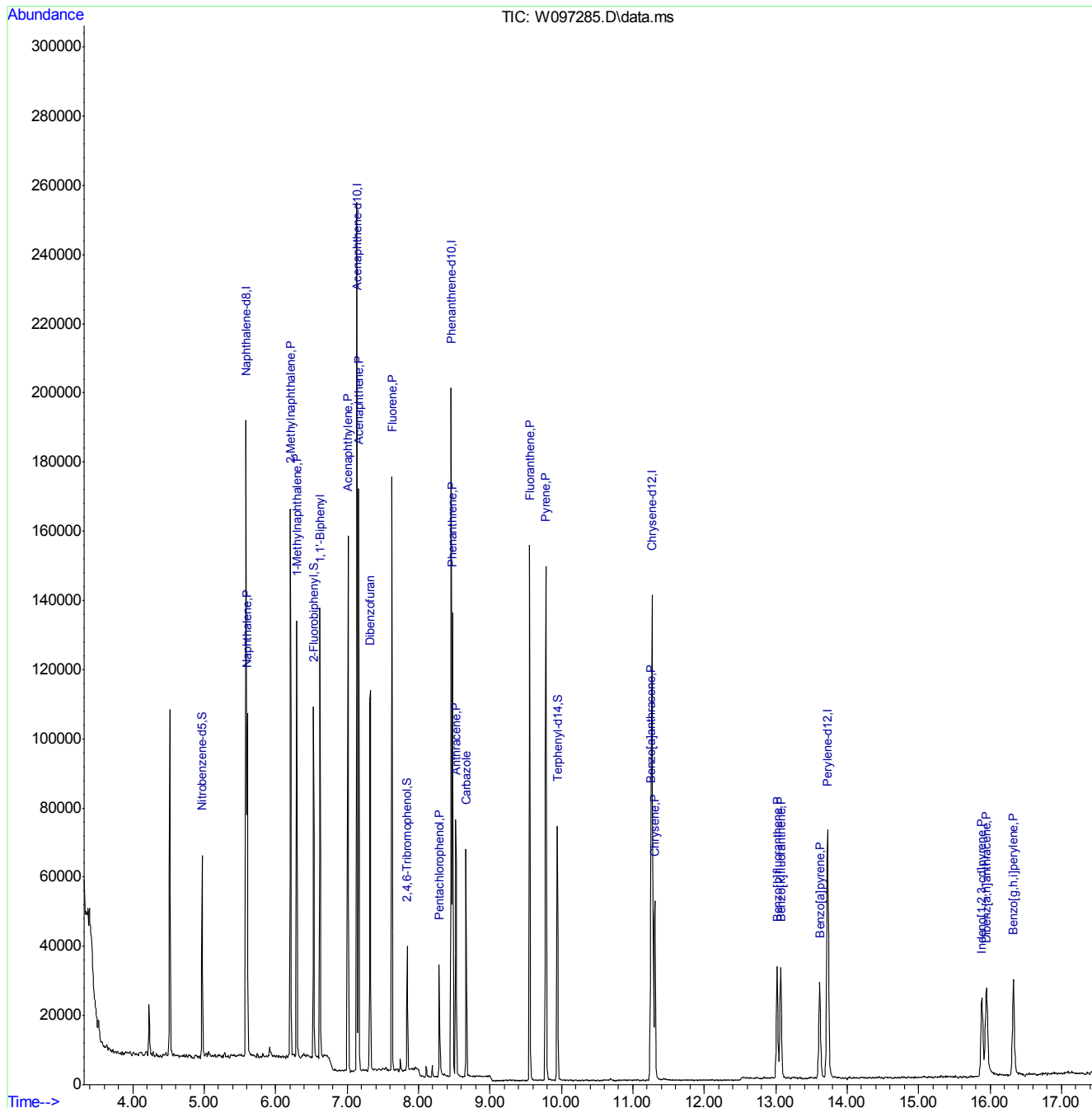
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097285.D
Acq On : 13 Feb 2017 7:33 pm
Operator : fouads
Sample : ic4338-2
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 99 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:31 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097286.D
 Acq On : 13 Feb 2017 7:55 pm
 Operator : foudas
 Sample : ic4338-3
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 98 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:33 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.587	136	139982	4.00	ppm	0.00
6) Acenaphthene-d10	7.135	164	79947	4.00	ppm	0.00
13) Phenanthrene-d10	8.460	188	137402	4.00	ppm	0.00
20) Chrysene-d12	11.268	240	106587	4.00	ppm	0.00
25) Perylene-d12	13.724	264	93501	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.967	82	50831	3.35	ppm	0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	33.50%		
7) 2-Fluorobiphenyl	6.526	172	127795	5.64	ppm	0.00
Spiked Amount 10.000	Range 43 - 107		Recovery =	56.40%		
14) 2,4,6-Tribromophenol	7.841	330	24494	9.54	ppm	0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	47.70%		
22) Terphenyl-d14	9.940	244	108490	4.83	ppm	0.01
Spiked Amount 10.000	Range 45 - 119		Recovery =	48.30%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.606	128	168526	4.91	ppm	99
4) 2-Methylnaphthalene	6.206	142	131027	5.40	ppm	94
5) 1-Methylnaphthalene	6.297	142	116306	5.55	ppm	97
8) 1,1'-Biphenyl	6.617	154	137066	5.40	ppm	97
9) Acenaphthylene	7.010	152	202779	6.01	ppm	97
10) Acenaphthene	7.162	153	116415	5.57	ppm	94
11) Dibenzofuran	7.322	168	168281	6.13	ppm	93
12) Fluorene	7.626	166	147245	5.85	ppm	99
15) Pentachlorophenol	8.292	266	35056	9.65	ppm	98
16) Phenanthrene	8.479	178	193792	5.55	ppm	99
17) Anthracene	8.524	178	102437	2.57	ppm	99
18) Carbazole	8.666	167	106063	2.92	ppm	96
19) Fluoranthene	9.557	202	234083	5.36	ppm	98
21) Pyrene	9.783	202	234984	5.07	ppm	97
23) Benzo[a]anthracene	11.253	228	103768	2.42	ppm	98
24) Chrysene	11.303	228	93133	2.46	ppm	98
26) Benzo[b]fluoranthene	13.016	252	90804	2.56	ppm	94
27) Benzo[k]fluoranthene	13.070	252	82666	2.45	ppm	94
28) Benzo[a]pyrene	13.611	252	82282	2.48	ppm	96
29) Indeno[1,2,3-cd]pyrene	15.884	276	66591	2.61	ppm	94
30) Dibenz[a,h]anthracene	15.953	278	62670	2.62	ppm	93
31) Benzo[g,h,i]perylene	16.327	276	75327	2.47	ppm	88

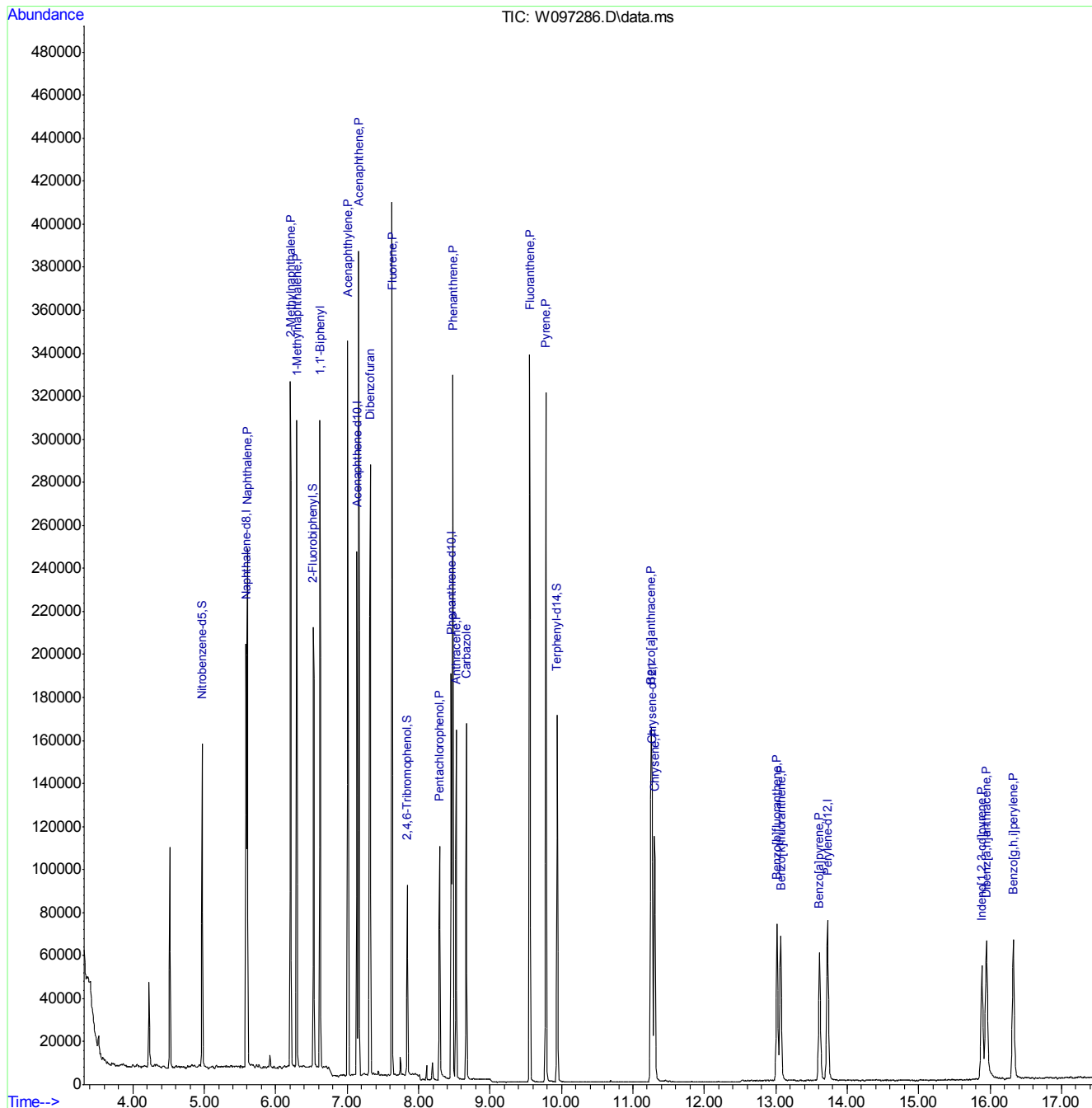
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097286.D
Acq On : 13 Feb 2017 7:55 pm
Operator : fouads
Sample : ic4338-3
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 98 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:33 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097287.D
 Acq On : 13 Feb 2017 8:18 pm
 Operator : fouads
 Sample : icc4338-4
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 97 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:35 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.586	136	134355	4.00	ppm	0.00
6) Acenaphthene-d10	7.135	164	79791	4.00	ppm	0.00
13) Phenanthrene-d10	8.459	188	127548	4.00	ppm	0.00
20) Chrysene-d12	11.267	240	100499	4.00	ppm	-0.01
25) Perylene-d12	13.725	264	91230	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.966	82	98498	6.77	ppm	0.01
Spiked Amount 10.000	Range 40 - 105		Recovery =	67.70%		
7) 2-Fluorobiphenyl	6.531	172	250672	11.13	ppm	0.00
Spiked Amount 10.000	Range 43 - 107		Recovery =	111.30%#		
14) 2,4,6-Tribromophenol	7.842	330	48219	20.23	ppm	0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	101.15%		
22) Terphenyl-d14	9.944	244	206919	9.93	ppm	0.02
Spiked Amount 10.000	Range 45 - 119		Recovery =	99.30%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.605	128	329814	10.02	ppm	99
4) 2-Methylnaphthalene	6.212	142	246592	11.04	ppm	92
5) 1-Methylnaphthalene	6.296	142	220361	11.34	ppm	95
8) 1,1'-Biphenyl	6.616	154	265708	10.48	ppm	97
9) Acenaphthylene	7.011	152	386432	11.70	ppm	98
10) Acenaphthene	7.163	153	221857	10.64	ppm	96
11) Dibenzofuran	7.322	168	303452	11.27	ppm	94
12) Fluorene	7.627	166	269071	10.91	ppm	98
15) Pentachlorophenol	8.292	266	82534	24.47	ppm	99
16) Phenanthrene	8.479	178	353722	10.91	ppm	99
17) Anthracene	8.523	178	201123	5.67	ppm	98
18) Carbazole	8.666	167	195347	6.10	ppm	96
19) Fluoranthene	9.556	202	413204	10.68	ppm	97
21) Pyrene	9.787	202	431770	10.04	ppm	98
23) Benzo[a]anthracene	11.253	228	199968	4.95	ppm	99
24) Chrysene	11.307	228	172638	4.84	ppm	99
26) Benzo[b]fluoranthene	13.017	252	165853	4.80	ppm	95
27) Benzo[k]fluoranthene	13.066	252	157888	4.80	ppm	95
28) Benzo[a]pyrene	13.617	252	161131	4.99	ppm	96
29) Indeno[1,2,3-cd]pyrene	15.885	276	127435	5.12	ppm	92
30) Dibenz[a,h]anthracene	15.954	278	123341	5.28	ppm	94
31) Benzo[g,h,i]perylene	16.328	276	142576	4.78	ppm	86

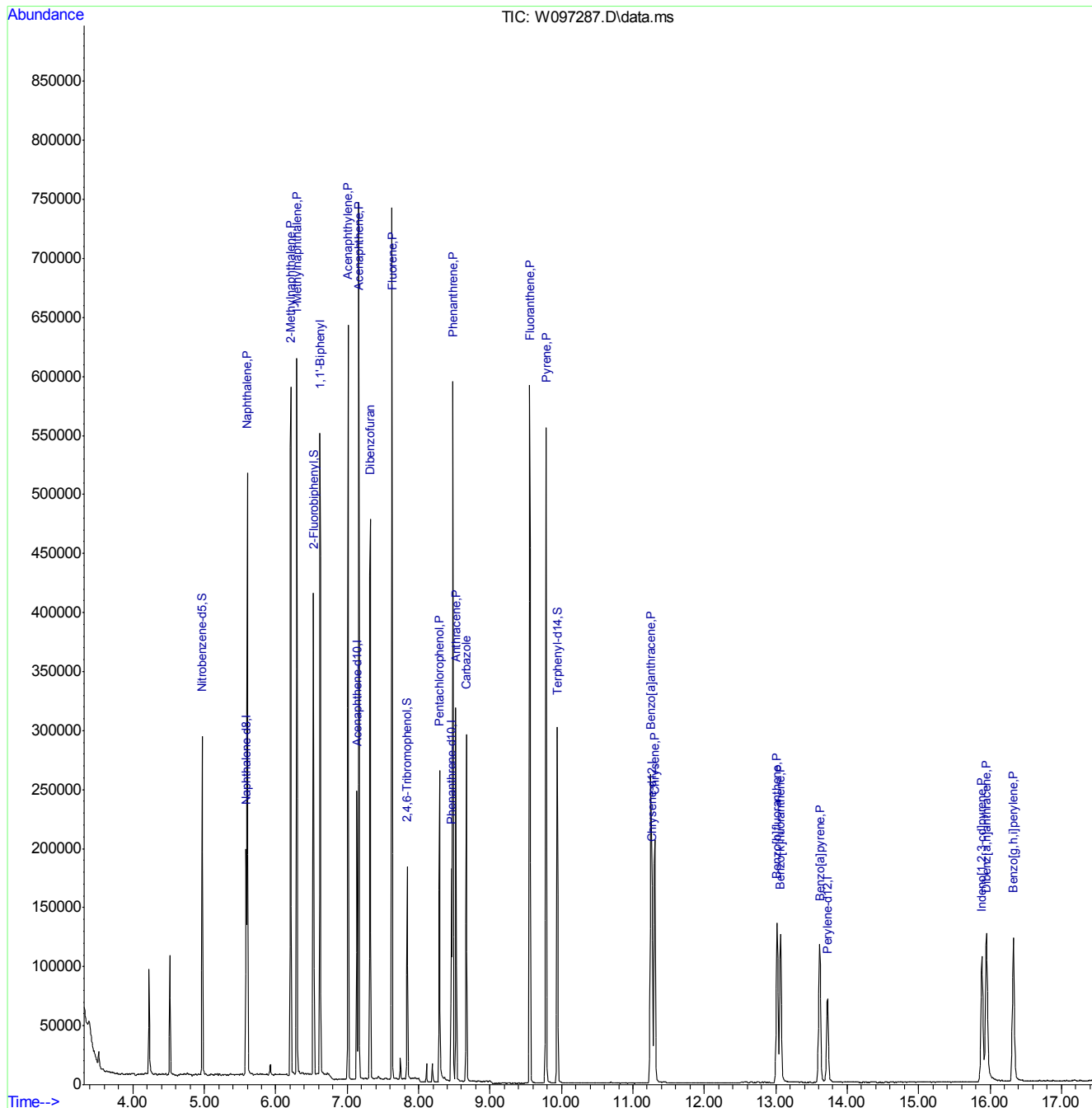
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097287.D
Acq On : 13 Feb 2017 8:18 pm
Operator : fouads
Sample : icc4338-4
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 97 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:35 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration

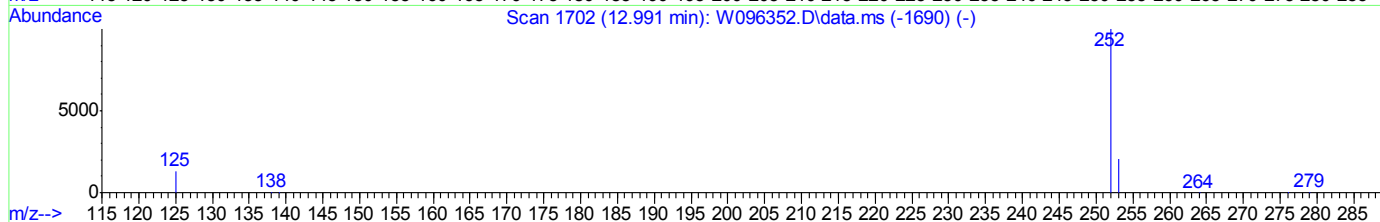
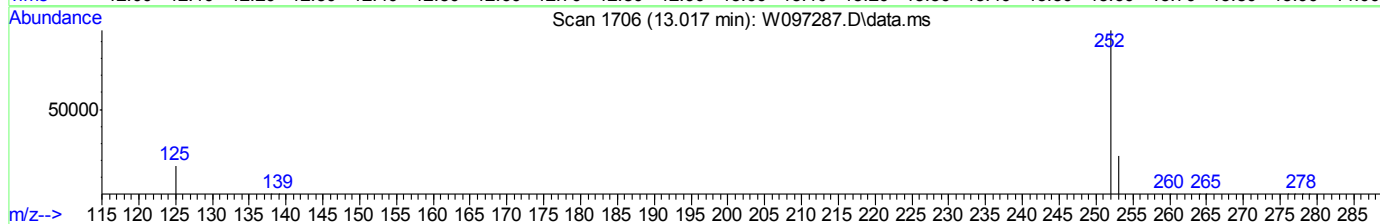
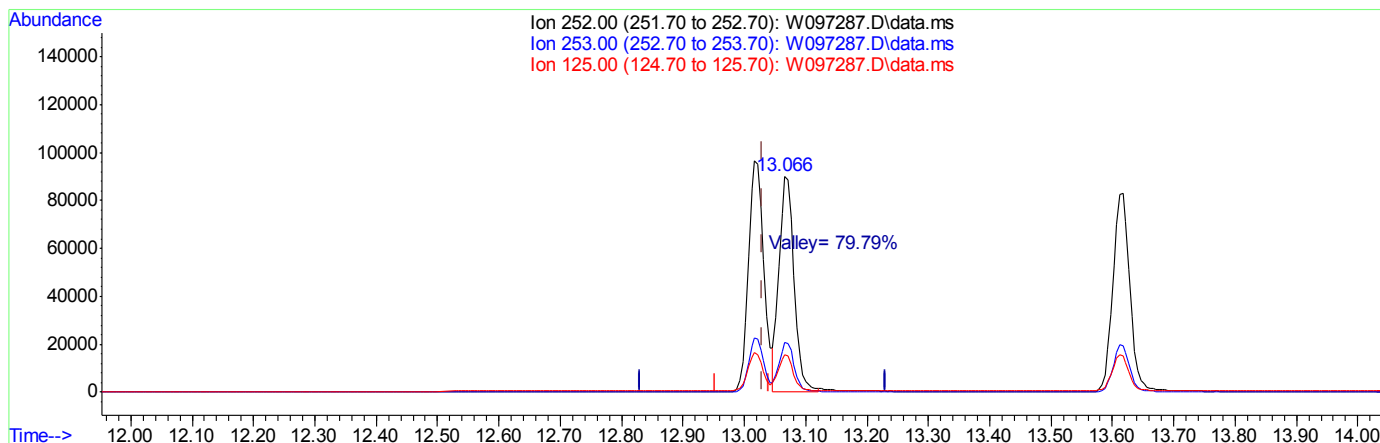


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097287.D
 Acq On : 13 Feb 2017 8:18 pm
 Operator : fouads
 Sample : icc4338-4
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 97 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:35 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration



TIC: W097287.D\data.ms

(26) Benzo[b]fluoranthene (P)

13.017min (-0.013) 4.80ppm

response 165853

Ion	Exp%	Act%
252.00	100	100
253.00	24.10	23.34
125.00	11.70	16.85
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097288.D
 Acq On : 13 Feb 2017 8:41 pm
 Operator : fouads
 Sample : ic4338-5
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 96 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:37 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.588	136	154493	4.00	ppm	0.00
6) Acenaphthene-d10	7.136	164	84735	4.00	ppm	0.00
13) Phenanthrene-d10	8.459	188	120114	4.00	ppm	0.00
20) Chrysene-d12	11.268	240	89208	4.00	ppm	-0.01
25) Perylene-d12	13.725	264	84562	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.969	82	163308	9.76	ppm	0.01
Spiked Amount 10.000	Range 40	- 105	Recovery	=	97.60%	
7) 2-Fluorobiphenyl	6.527	172	377691	15.85	ppm	0.00
Spiked Amount 10.000	Range 43	- 107	Recovery	=	158.50%#	
14) 2,4,6-Tribromophenol	7.842	330	69078	30.78	ppm	0.01
Spiked Amount 20.000	Range 42	- 108	Recovery	=	153.90%#	
22) Terphenyl-d14	9.944	244	249391	13.64	ppm	0.02
Spiked Amount 10.000	Range 45	- 119	Recovery	=	136.40%#	
Target Compounds						
					Qvalue	
3) Naphthalene	5.601	128	537184	14.19	ppm	98
4) 2-Methylnaphthalene	6.208	142	375329	15.06	ppm	97
5) 1-Methylnaphthalene	6.299	142	340058	15.61	ppm	96
8) 1,1'-Biphenyl	6.618	154	408912	15.19	ppm	97
9) Acenaphthylene	7.011	152	559645	16.21	ppm	98
10) Acenaphthene	7.163	153	314951	14.22	ppm	96
11) Dibenzofuran	7.322	168	452271	16.08	ppm	95
12) Fluorene	7.627	166	378147	14.64	ppm	98
15) Pentachlorophenol	8.292	266	126003	39.68	ppm	99
16) Phenanthrene	8.479	178	466660	15.28	ppm	99
17) Anthracene	8.523	178	258693	8.00	ppm	99
18) Carbazole	8.666	167	246451	8.51	ppm	96
19) Fluoranthene	9.556	202	526442	15.04	ppm	97
21) Pyrene	9.782	202	544407	14.46	ppm	96
23) Benzo[a]anthracene	11.253	228	242320	6.75	ppm	100
24) Chrysene	11.307	228	222391	7.03	ppm	98
26) Benzo[b]fluoranthene	13.022	252	219886	6.86	ppm	95
27) Benzo[k]fluoranthene	13.066	252	202266	6.63	ppm	95
28) Benzo[a]pyrene	13.612	252	210822	7.04	ppm	95
29) Indeno[1,2,3-cd]pyrene	15.890	276	186142	8.06	ppm	97
30) Dibenz[a,h]anthracene	15.954	278	169838	7.84	ppm	93
31) Benzo[g,h,i]perylene	16.328	276	204963	7.42	ppm	84

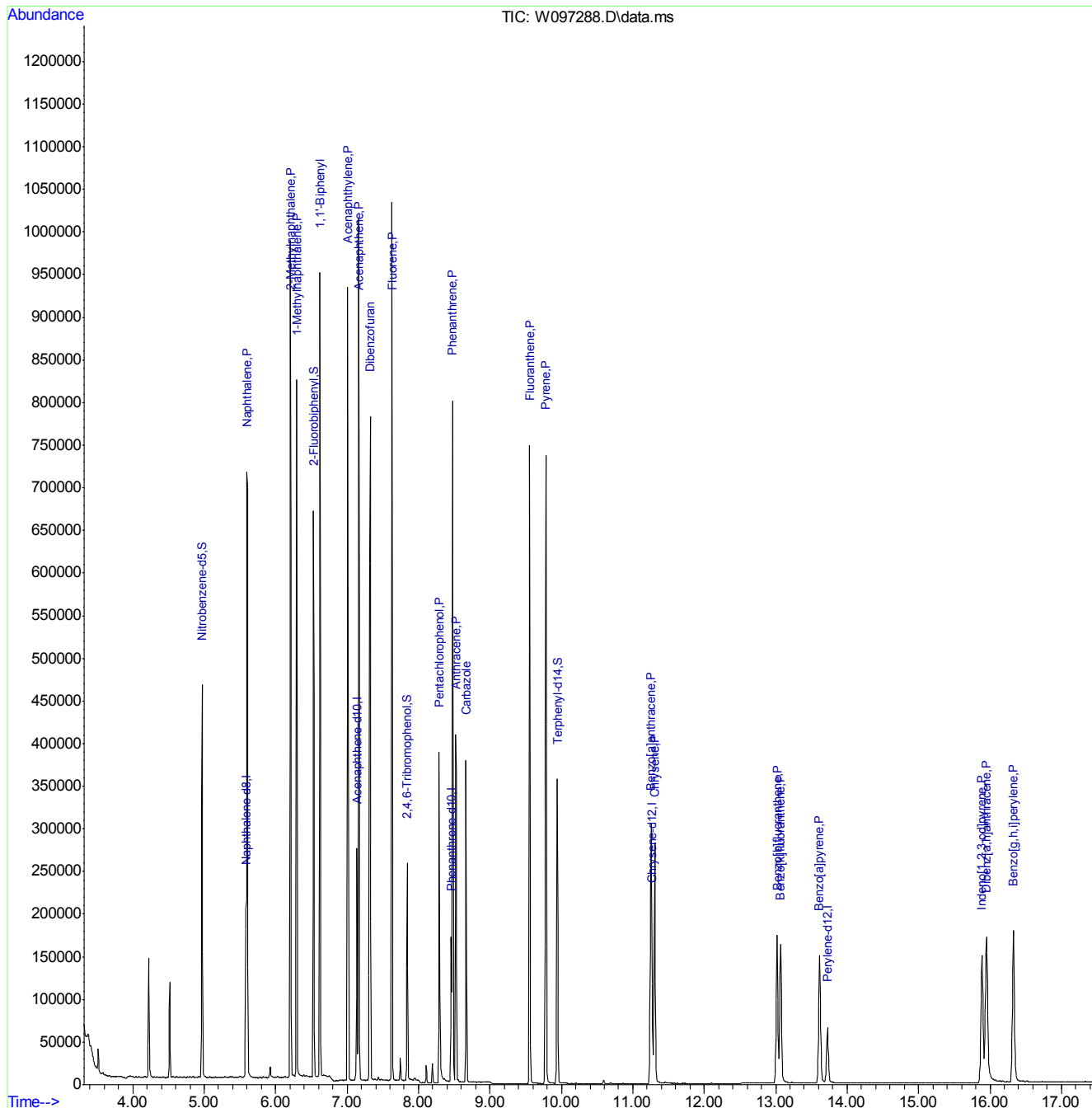
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097288.D
Acq On : 13 Feb 2017 8:41 pm
Operator : fouads
Sample : ic4338-5
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 96 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:37 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097289.D
 Acq On : 13 Feb 2017 9:04 pm
 Operator : fouads
 Sample : ic4338-6
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 95 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:39 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Mon Feb 13 16:39:13 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.587	136	149144	4.00	ppm	0.00
6) Acenaphthene-d10	7.135	164	84778	4.00	ppm	0.00
13) Phenanthrene-d10	8.460	188	124750	4.00	ppm	0.00
20) Chrysene-d12	11.268	240	88447	4.00	ppm	0.00
25) Perylene-d12	13.724	264	81699	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.967	82	206675	12.79	ppm	0.01
Spiked Amount 10.000	Range 40	- 105	Recovery	=	127.90%#	
7) 2-Fluorobiphenyl	6.532	172	473272	19.92	ppm	0.01
Spiked Amount 10.000	Range 43	- 107	Recovery	=	199.20%#	
14) 2,4,6-Tribromophenol	7.841	330	88527	37.98	ppm	0.01
Spiked Amount 20.000	Range 42	- 108	Recovery	=	189.90%#	
22) Terphenyl-d14	9.945	244	341188	19.15	ppm	0.02
Spiked Amount 10.000	Range 45	- 119	Recovery	=	191.50%#	
Target Compounds						
					Qvalue	
3) Naphthalene	5.606	128	646463	17.68	ppm	98
4) 2-Methylnaphthalene	6.213	142	479965	20.89	ppm	91
5) 1-Methylnaphthalene	6.297	142	439465	21.70	ppm	93
8) 1,1'-Biphenyl	6.617	154	523235	19.43	ppm	96
9) Acenaphthylene	7.010	152	732740	21.62	ppm	97
10) Acenaphthene	7.162	153	419986	18.95	ppm	94
11) Dibenzofuran	7.322	168	558518	20.14	ppm	88
12) Fluorene	7.626	166	511676	20.22	ppm	98
15) Pentachlorophenol	8.293	266	174639	52.95	ppm	98
16) Phenanthrene	8.480	178	639918	20.17	ppm	99
17) Anthracene	8.524	178	346526	10.74	ppm	99
18) Carbazole	8.667	167	327199	11.46	ppm	96
19) Fluoranthene	9.557	202	708690	20.57	ppm	97
21) Pyrene	9.783	202	704841	19.18	ppm	96
23) Benzo[a]anthracene	11.254	228	324712	9.13	ppm	99
24) Chrysene	11.308	228	297927	9.50	ppm	99
26) Benzo[b]fluoranthene	13.021	252	269641	8.71	ppm	95
27) Benzo[k]fluoranthene	13.070	252	272402	9.25	ppm	96
28) Benzo[a]pyrene	13.616	252	276018	9.54	ppm	95
29) Indeno[1,2,3-cd]pyrene	15.893	276	234292	10.51	ppm	99
30) Dibenz[a,h]anthracene	15.952	278	224771	10.74	ppm	91
31) Benzo[g,h,i]perylene	16.326	276	262260	9.83	ppm	85

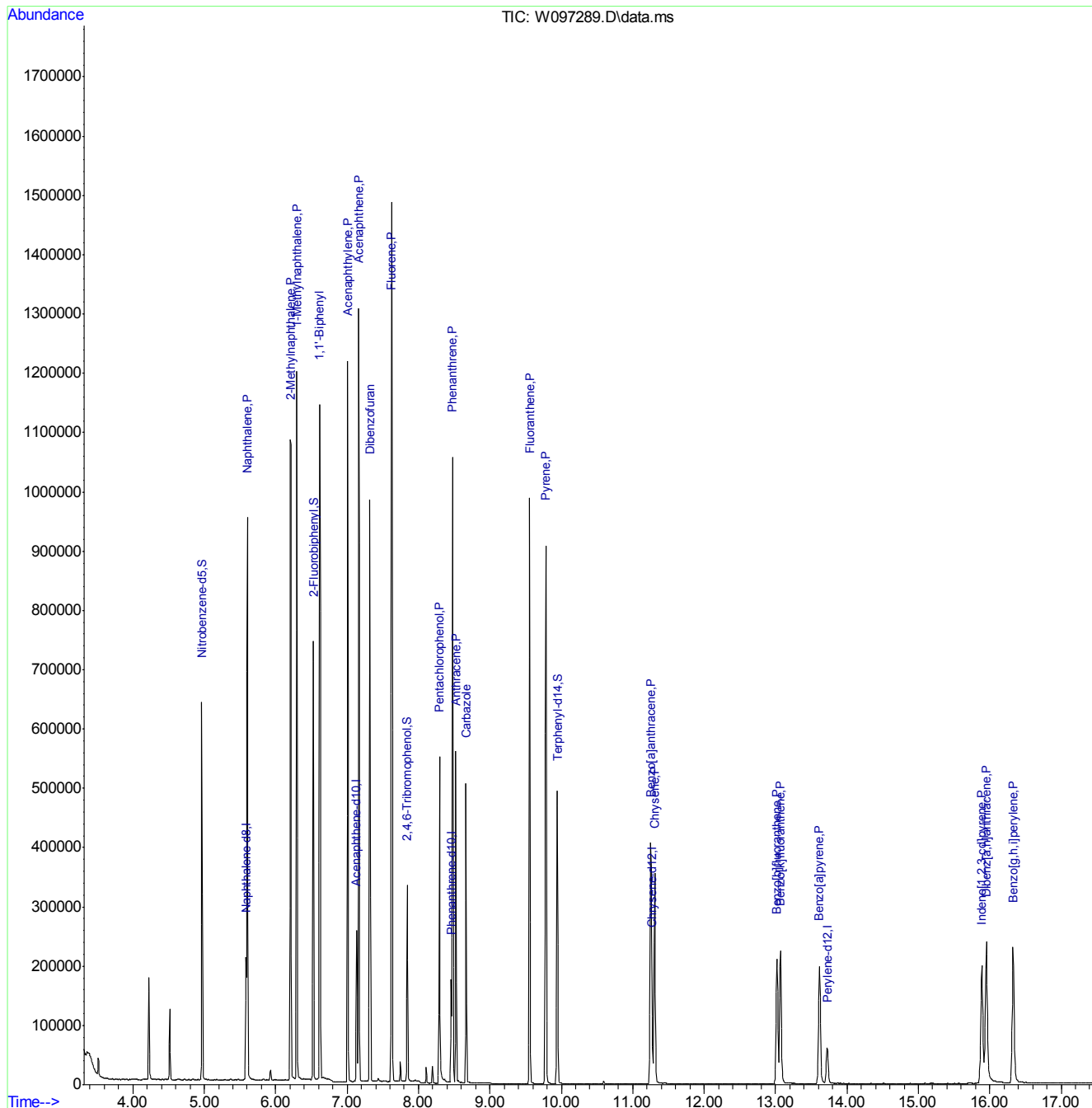
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097289.D
Acq On : 13 Feb 2017 9:04 pm
Operator : fouads
Sample : ic4338-6
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 95 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:01:39 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Mon Feb 13 16:39:13 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097290.D
 Acq On : 13 Feb 2017 9:27 pm
 Operator : fouads
 Sample : ic4338-7
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 94 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:09:40 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Tue Feb 14 08:09:11 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.586	136	140616	4.00	ppm	0.00
6) Acenaphthene-d10	7.135	164	76981	4.00	ppm	0.00
13) Phenanthrene-d10	8.460	188	125724	4.00	ppm	0.00
20) Chrysene-d12	11.273	240	94901	4.00	ppm	0.00
25) Perylene-d12	13.724	264	87235	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.967	82	341241	22.40	ppm	0.01
Spiked Amount 10.000	Range 40	- 105	Recovery	=	224.00%#	
7) 2-Fluorobiphenyl	6.532	172	806570	33.51	ppm	0.01
Spiked Amount 10.000	Range 43	- 107	Recovery	=	335.10%#	
14) 2,4,6-Tribromophenol	7.848	330	169287	72.06	ppm	0.02
Spiked Amount 20.000	Range 42	- 108	Recovery	=	360.30%#	
22) Terphenyl-d14	9.945	244	686477	33.00	ppm	0.02
Spiked Amount 10.000	Range 45	- 119	Recovery	=	330.00%#	
Target Compounds						
					Qvalue	
3) Naphthalene	5.606	128	1091881	31.68	ppm	98
4) 2-Methylnaphthalene	6.212	142	788150	31.80	ppm	92
5) 1-Methylnaphthalene	6.297	142	752406	33.85	ppm	88
8) 1,1'-Biphenyl	6.623	154	896300	36.65	ppm	98
9) Acenaphthylene	7.010	152	1208723	34.96	ppm	97
10) Acenaphthene	7.169	153	723386	35.95	ppm	98
11) Dibenzofuran	7.322	168	969602	35.07	ppm	80
12) Fluorene	7.626	166	853067	33.35	ppm	96
15) Pentachlorophenol	8.297	266	386054	116.14	ppm	95
16) Phenanthrene	8.484	178	1199094	37.51	ppm	99
17) Anthracene	8.529	178	658011	18.59	ppm	99
18) Carbazole	8.671	167	607419	18.88	ppm	97
19) Fluoranthene	9.562	202	1379150	34.66	ppm	97
21) Pyrene	9.788	202	1416166	32.11	ppm	96
23) Benzo[a]anthracene	11.258	228	645552	16.92	ppm	98
24) Chrysene	11.308	228	591636	17.58	ppm	99
26) Benzo[b]fluoranthene	13.026	252	529072	16.00	ppm	95
27) Benzo[k]fluoranthene	13.075	252	525895	16.72	ppm	95
28) Benzo[a]pyrene	13.621	252	521156	16.86	ppm	95
29) Indeno[1,2,3-cd]pyrene	15.899	276	453588	19.05	ppm	94
30) Dibenz[a,h]anthracene	15.958	278	439207	19.65	ppm	90
31) Benzo[g,h,i]perylene	16.341	276	498218	17.48	ppm	87

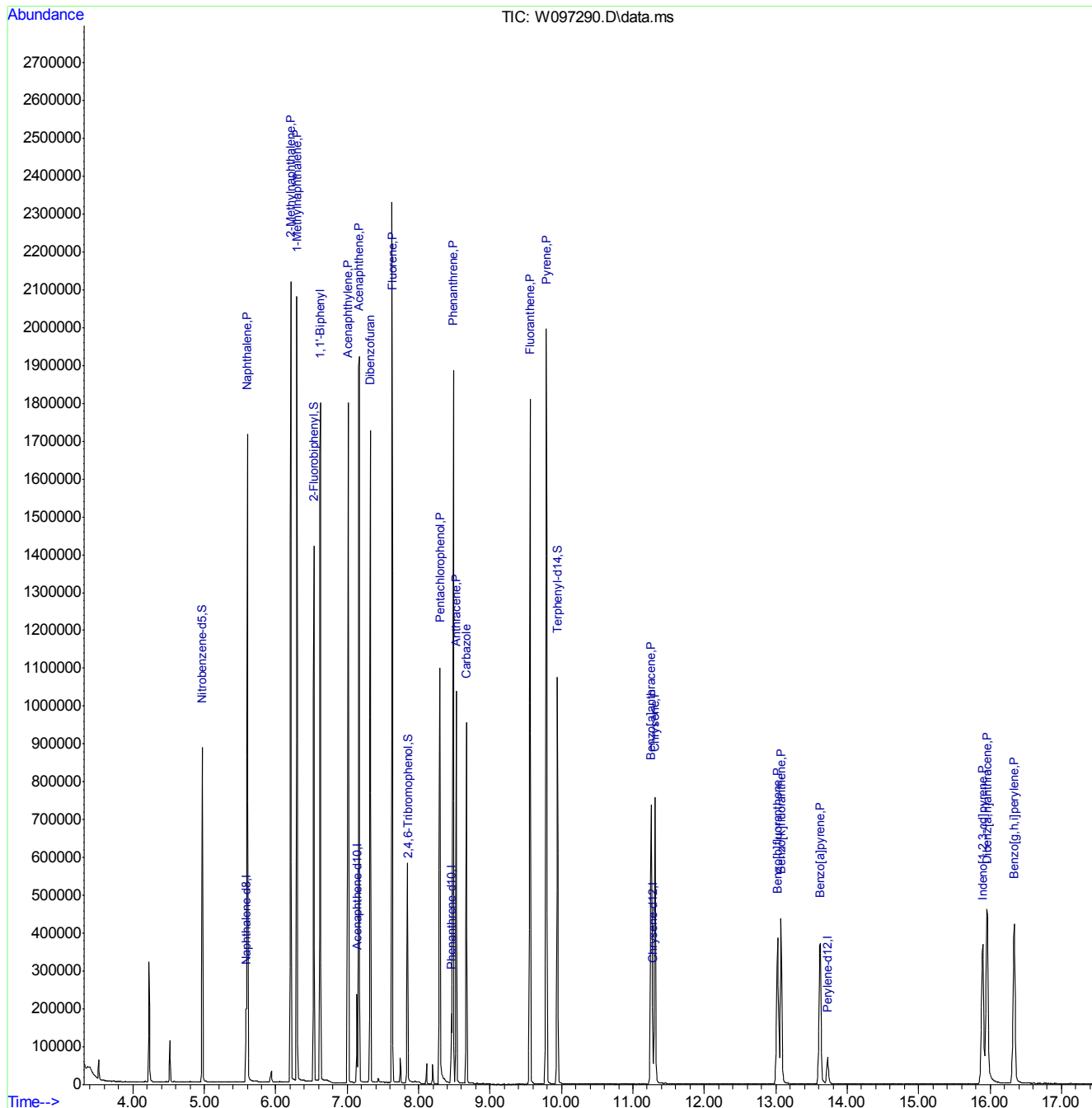
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097290.D
Acq On : 13 Feb 2017 9:27 pm
Operator : fouads
Sample : ic4338-7
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 94 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:09:40 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Tue Feb 14 08:09:11 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
 Data File : W097291.D
 Acq On : 13 Feb 2017 9:49 pm
 Operator : foudas
 Sample : icv4338-4
 Misc : op63755,sw4338,14.9,,,1,1,soil
 ALS Vial : 93 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:14:58 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Tue Feb 14 08:14:18 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.586	136	140501	4.00	ppm	0.00
6) Acenaphthene-d10	7.136	164	77715	4.00	ppm	0.00
13) Phenanthrene-d10	8.459	188	120707	4.00	ppm	0.00
20) Chrysene-d12	11.268	240	87460	4.00	ppm	-0.01
25) Perylene-d12	13.725	264	82840	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	0.000	82	0	0.00	ppm	
Spiked Amount 10.000	Range 40 - 105		Recovery =		0.00%	
7) 2-Fluorobiphenyl	0.000	172	0	0.00	ppm	
Spiked Amount 10.000	Range 43 - 107		Recovery =		0.00%	
14) 2,4,6-Tribromophenol	0.000	330	0	0.00	ppm	
Spiked Amount 20.000	Range 42 - 108		Recovery =		0.00%	
22) Terphenyl-d14	0.000	244	0	0.00	ppm	
Spiked Amount 10.000	Range 45 - 119		Recovery =		0.00%	
Target Compounds						
						Qvalue
3) Naphthalene	5.605	128	298625	8.76	ppm	100
4) 2-Methylnaphthalene	6.212	142	207951	8.45	ppm	99
5) 1-Methylnaphthalene	6.297	142	208314	9.11	ppm	100
9) Acenaphthylene	7.011	152	346610	9.63	ppm	100
10) Acenaphthene	7.163	153	193759	9.22	ppm	99
11) Dibenzofuran	7.323	168	286328	10.20	ppm	97
12) Fluorene	7.627	166	239430	9.65	ppm	100
15) Pentachlorophenol	8.291	266	54129	17.36	ppm	98
16) Phenanthrene	8.479	178	297750	8.72	ppm	99
17) Anthracene	8.523	178	157737	4.22	ppm	100
18) Carbazole	8.666	167	162446	4.53	ppm	99
19) Fluoranthene	9.556	202	352219	9.62	ppm	99
21) Pyrene	9.783	202	344107	8.90	ppm	98
23) Benzo[a]anthracene	11.253	228	157704	4.64	ppm	99
24) Chrysene	11.307	228	144897	4.80	ppm	99
26) Benzo[b]fluoranthene	13.022	252	135954	4.42	ppm	99
27) Benzo[k]fluoranthene	13.066	252	126441	4.27	ppm	99
28) Benzo[a]pyrene	13.612	252	129255	4.40	ppm	99
29) Indeno[1,2,3-cd]pyrene	15.889	276	112372	4.66	ppm	94
30) Dibenz[a,h]anthracene	15.948	278	100617	4.37	ppm	96
31) Benzo[g,h,i]perylene	16.327	276	116781	4.28	ppm	99

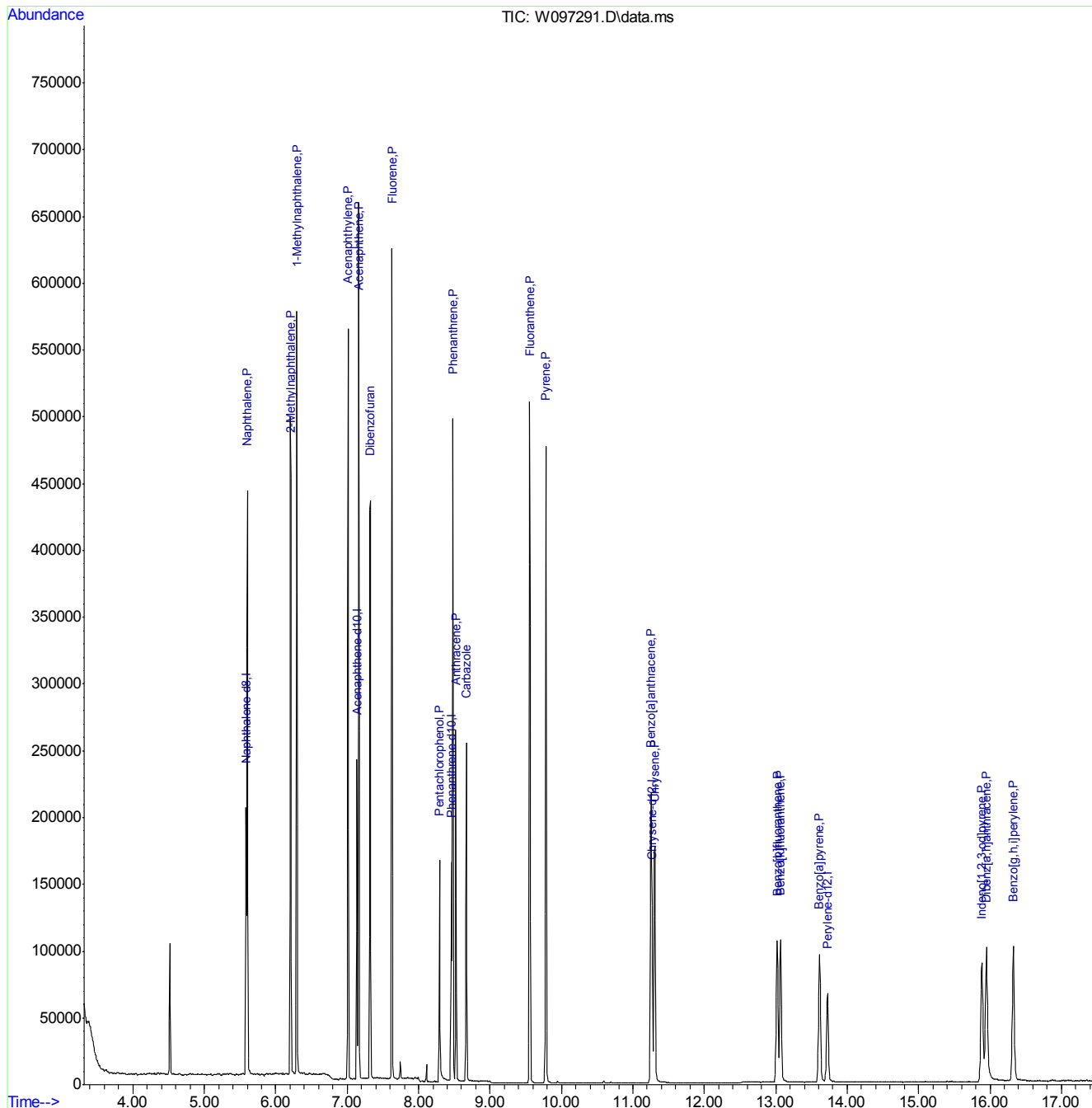
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4338\
Data File : W097291.D
Acq On : 13 Feb 2017 9:49 pm
Operator : fouads
Sample : icv4338-4
Misc : op63755,sw4338,14.9,,,1,1,soil
ALS Vial : 93 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Feb 14 08:14:58 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Tue Feb 14 08:14:18 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098312.D
 Acq On : 27 Mar 2017 9:50 am
 Operator : foudas
 Sample : cc4339-4
 Misc : op64229,sw4367,15.0,,,1,1,soil
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 10:11:50 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.527	136	134933	4.00	ppm	-0.01
6) Acenaphthene-d10	7.080	164	72989	4.00	ppm	-0.01
13) Phenanthrene-d10	8.395	188	116047	4.00	ppm	-0.02
20) Chrysene-d12	11.179	240	90361	4.00	ppm	-0.02
25) Perylene-d12	13.612	264	79709	4.00	ppm	-0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	4.914	82	97419	10.11	ppm	-0.02
Spiked Amount 10.000	Range 40	- 105	Recovery	=	101.10%	
7) 2-Fluorobiphenyl	6.472	172	220707	10.04	ppm	-0.02
Spiked Amount 10.000	Range 43	- 107	Recovery	=	100.40%	
14) 2,4,6-Tribromophenol	7.787	330	41565	19.41	ppm	-0.01
Spiked Amount 20.000	Range 42	- 108	Recovery	=	97.05%	
22) Terphenyl-d14	9.871	244	162882	8.72	ppm	-0.01
Spiked Amount 10.000	Range 45	- 119	Recovery	=	87.20%	
Target Compounds						
					Qvalue	
3) Naphthalene	5.547	128	280280	8.56	ppm	99
4) 2-Methylnaphthalene	6.153	142	215945	9.18	ppm	97
5) 1-Methylnaphthalene	6.238	142	194100	8.84	ppm	96
8) 1,1'-Biphenyl	6.564	154	229349	9.63	ppm	99
9) Acenaphthylene	6.949	152	320748	9.48	ppm	98
10) Acenaphthene	7.108	153	185096	9.39	ppm	96
11) Dibenzofuran	7.260	168	259901	9.84	ppm	77
12) Fluorene	7.565	166	234280	10.07	ppm	97
15) Pentachlorophenol	8.233	266	71348	23.47	ppm	99
16) Phenanthrene	8.420	178	289029	8.80	ppm	99
17) Anthracene	8.464	178	160935	4.48	ppm	98
18) Carbazole	8.607	167	163869	4.75	ppm	100
19) Fluoranthene	9.492	202	357712	10.18	ppm	99
21) Pyrene	9.713	202	366371	9.18	ppm	100
23) Benzo[a]anthracene	11.164	228	160632	4.57	ppm	99
24) Chrysene	11.213	228	153100	4.91	ppm	100
26) Benzo[b]fluoranthene	12.913	252	133854	4.52	ppm	99
27) Benzo[k]fluoranthene	12.962	252	138145	4.84	ppm	99
28) Benzo[a]pyrene	13.504	252	133489	4.73	ppm	99
29) Indeno[1,2,3-cd]pyrene	15.776	276	103423	4.46	ppm	98
30) Dibenz[a,h]anthracene	15.840	278	98020	4.43	ppm	100
31) Benzo[g,h,i]perylene	16.229	276	125525	4.78	ppm	98

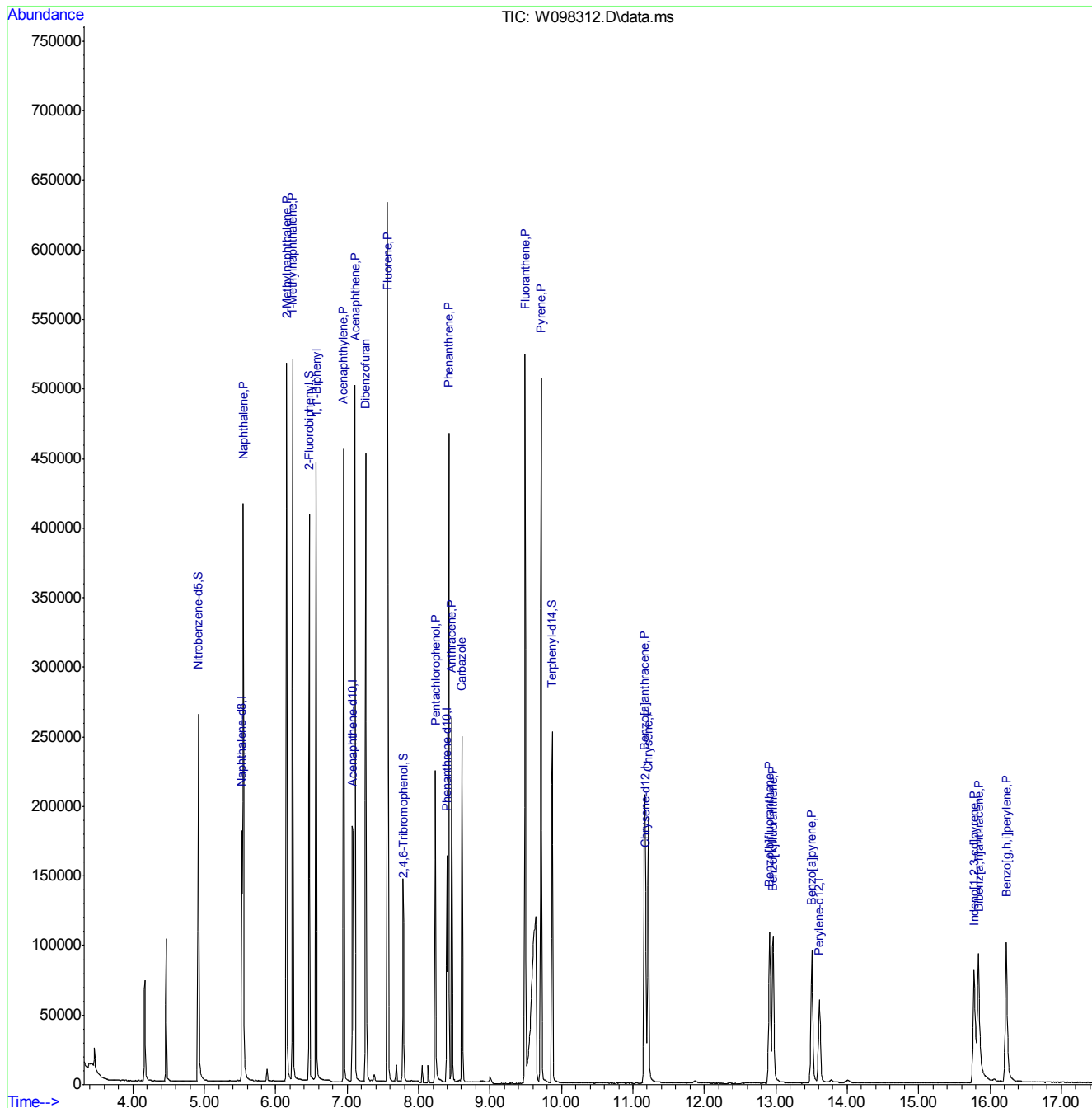
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098312.D
Acq On : 27 Mar 2017 9:50 am
Operator : fouads
Sample : cc4339-4
Misc : op64229,sw4367,15.0,,,1,1,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 10:11:50 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration

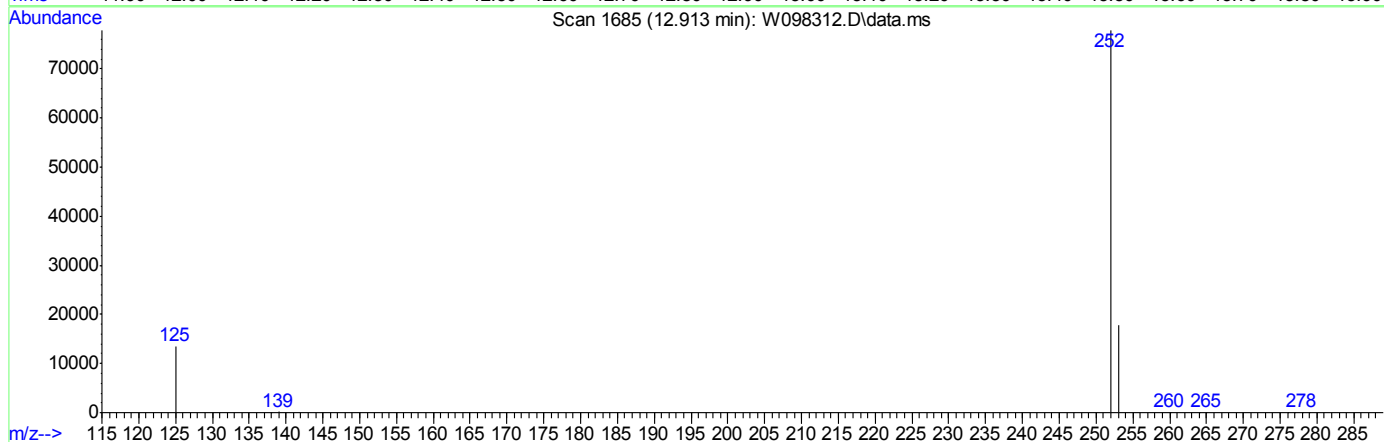
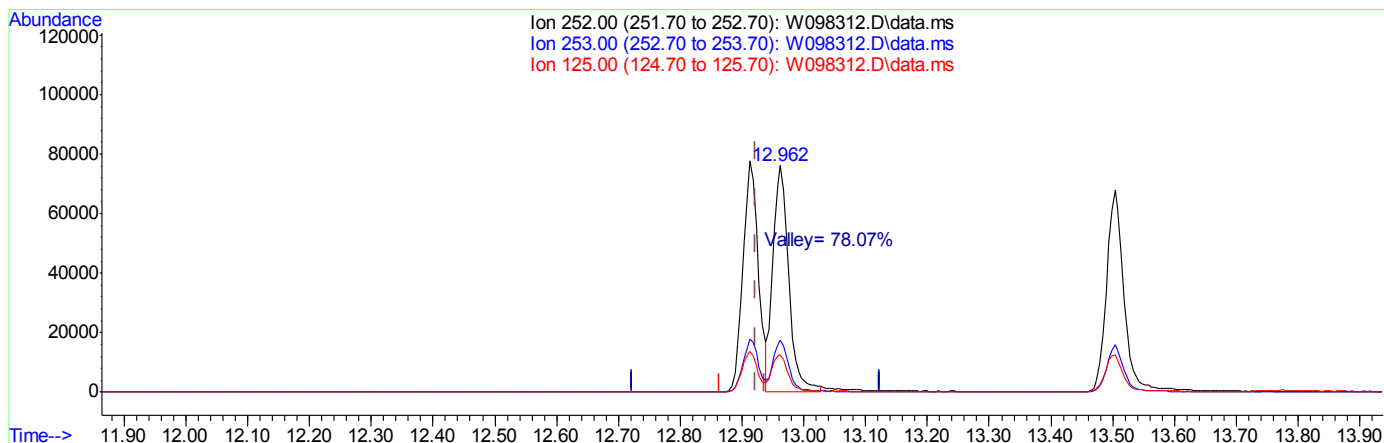


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098312.D
Acq On : 27 Mar 2017 9:50 am
Operator : fouads
Sample : cc4339-4
Misc : op64229,sw4367,15.0,,,1,1,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 27 10:11:50 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



TIC: W098312.D\data.ms

(26) Benzo[b]fluoranthene (P)

12.913min (-0.010) 4.52ppm

response 133854

Ion	Exp%	Act%
252.00	100	100
253.00	23.30	22.80
125.00	16.80	17.24
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
 Data File : W098339.D
 Acq On : 27 Mar 2017 8:07 pm
 Operator : foudas
 Sample : ecc4339-4
 Misc : op64311,sw4367,14.5,,,1,10,soil
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:18 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.528	136	97745	4.00	ppm	-0.01
6) Acenaphthene-d10	7.079	164	52120	4.00	ppm	-0.01
13) Phenanthrene-d10	8.396	188	85673	4.00	ppm	-0.02
20) Chrysene-d12	11.173	240	68820	4.00	ppm	-0.03
25) Perylene-d12	13.606	264	59184	4.00	ppm	-0.02
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	70211	10.06	ppm	-0.02
Spiked Amount 10.000	Range 40	- 105	Recovery	=	100.60%	
7) 2-Fluorobiphenyl	6.473	172	152772	9.72	ppm	-0.02
Spiked Amount 10.000	Range 43	- 107	Recovery	=	97.20%	
14) 2,4,6-Tribromophenol	7.779	330	30815	19.49	ppm	-0.02
Spiked Amount 20.000	Range 42	- 108	Recovery	=	97.45%	
22) Terphenyl-d14	9.870	244	121627	8.55	ppm	-0.01
Spiked Amount 10.000	Range 45	- 119	Recovery	=	85.50%	
Target Compounds						
					Qvalue	
3) Naphthalene	5.547	128	206347	8.70	ppm	99
4) 2-Methylnaphthalene	6.154	142	148586	8.70	ppm	98
5) 1-Methylnaphthalene	6.239	142	133985	8.42	ppm	94
8) 1,1'-Biphenyl	6.558	154	156197	9.17	ppm	95
9) Acenaphthylene	6.948	152	232141	9.62	ppm	99
10) Acenaphthene	7.107	153	132078	9.38	ppm	95
11) Dibenzofuran	7.259	168	182150	9.65	ppm	77
12) Fluorene	7.564	166	164268	9.88	ppm	98
15) Pentachlorophenol	8.229	266	58232	25.81	ppm	96
16) Phenanthrene	8.416	178	212076	8.75	ppm	100
17) Anthracene	8.465	178	118341	4.46	ppm	98
18) Carbazole	8.608	167	112292	4.41	ppm	98
19) Fluoranthene	9.491	202	265000	10.22	ppm	98
21) Pyrene	9.712	202	267674	8.80	ppm	98
23) Benzo[a]anthracene	11.158	228	123651	4.62	ppm	99
24) Chrysene	11.213	228	111310	4.68	ppm	100
26) Benzo[b]fluoranthene	12.908	252	107514	4.89	ppm	100
27) Benzo[k]fluoranthene	12.957	252	108128	5.11	ppm	99
28) Benzo[a]pyrene	13.498	252	106443	5.08	ppm	99
29) Indeno[1,2,3-cd]pyrene	15.771	276	77619	4.51	ppm	98
30) Dibenz[a,h]anthracene	15.830	278	70673	4.30	ppm	98
31) Benzo[g,h,i]perylene	16.223	276	94650	4.86	ppm	98

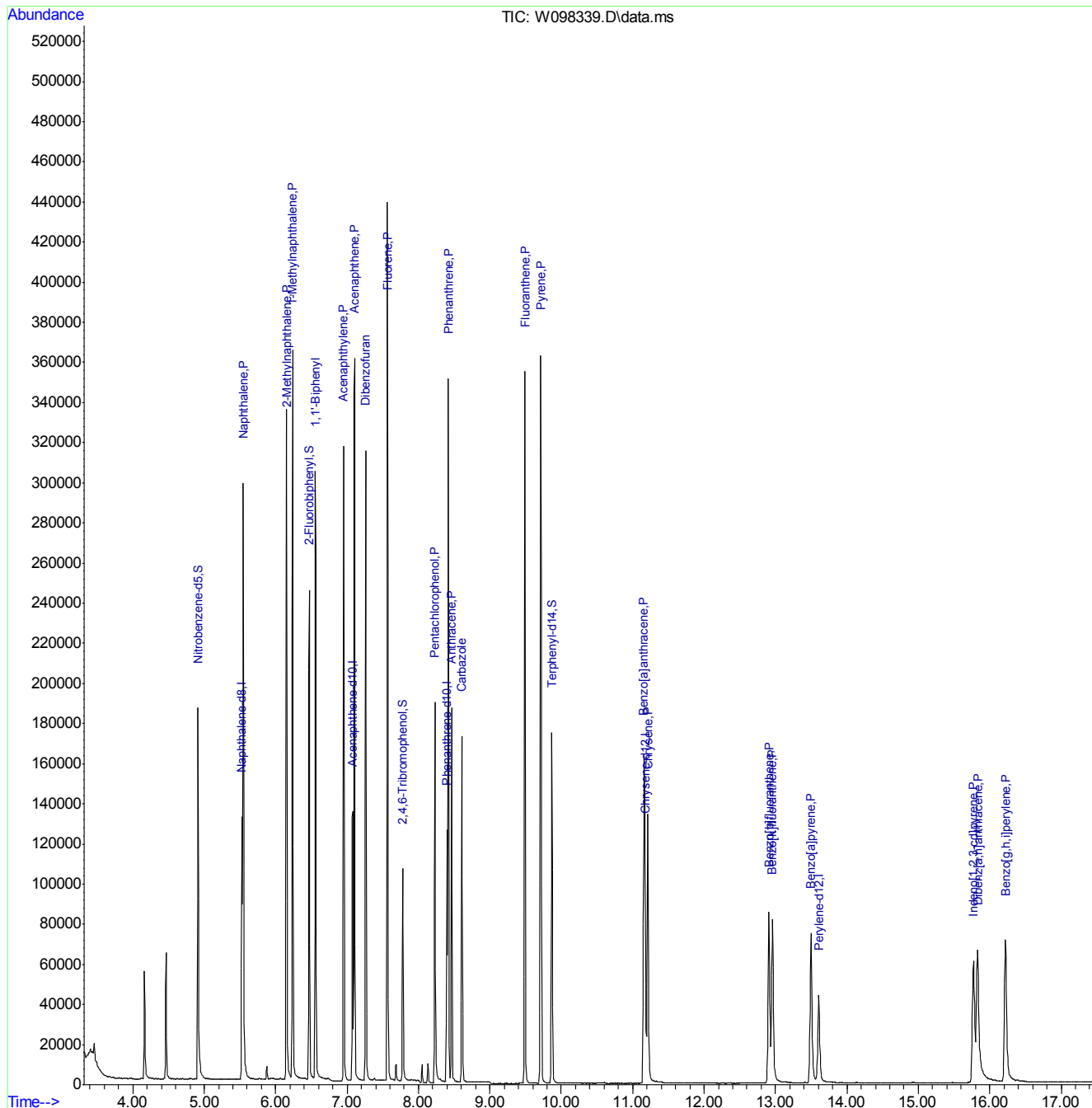
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098339.D
Acq On : 27 Mar 2017 8:07 pm
Operator : fouads
Sample : ecc4339-4
Misc : op64311,sw4367,14.5,,,1,10,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:18 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration

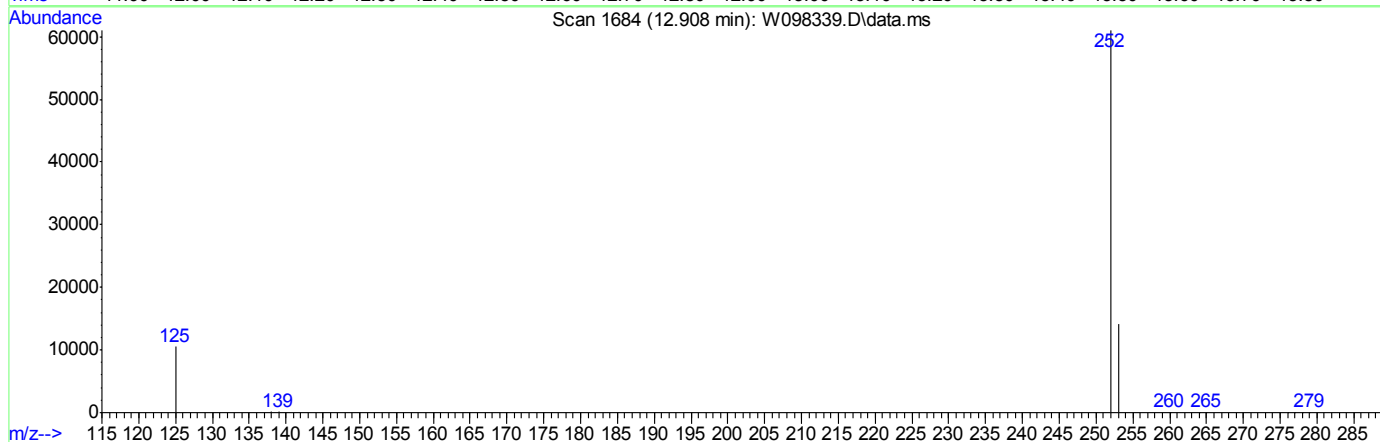
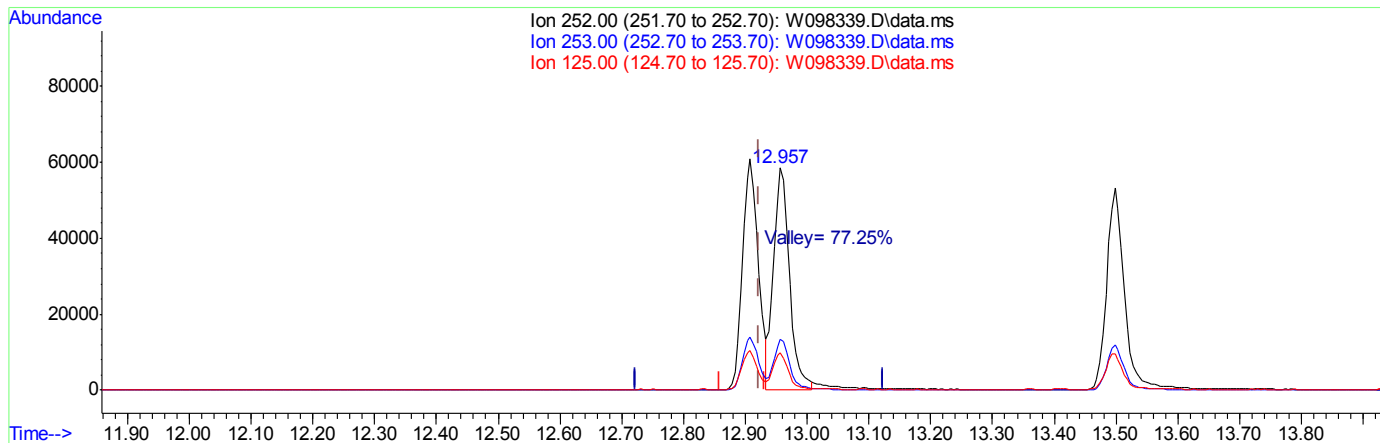


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4367\
Data File : W098339.D
Acq On : 27 Mar 2017 8:07 pm
Operator : fouads
Sample : ecc4339-4
Misc : op64311,sw4367,14.5,,,1,10,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 28 10:50:18 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



TIC: W098339.D\data.ms

(26) Benzo[b]fluoranthene (P)

12.908min (-0.016) 4.89ppm

response 107514

Ion	Exp%	Act%
252.00	100	100
253.00	23.30	23.20
125.00	16.80	17.12
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
 Data File : W098417.D
 Acq On : 30 Mar 2017 10:06 am
 Operator : fouads
 Sample : cc4339-4
 Misc : op64229,sw4370,15.0,,,1,1,soil
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 30 10:34:57 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.531	136	122300	4.00	ppm	-0.01
6) Acenaphthene-d10	7.080	164	69547	4.00	ppm	-0.01
13) Phenanthrene-d10	8.399	188	111629	4.00	ppm	-0.01
20) Chrysene-d12	11.183	240	82482	4.00	ppm	-0.01
25) Perylene-d12	13.621	264	81257	4.00	ppm	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.918	82	72302	8.28	ppm	-0.01
Spiked Amount 10.000	Range 40	- 105	Recovery	=	82.80%	
7) 2-Fluorobiphenyl	6.470	172	190424	9.05	ppm	-0.02
Spiked Amount 10.000	Range 43	- 107	Recovery	=	90.50%	
14) 2,4,6-Tribromophenol	7.786	330	39954	19.39	ppm	-0.01
Spiked Amount 20.000	Range 42	- 108	Recovery	=	96.95%	
22) Terphenyl-d14	9.870	244	155623	9.13	ppm	-0.01
Spiked Amount 10.000	Range 45	- 119	Recovery	=	91.30%	
Target Compounds						
3) Naphthalene	5.550	128	249182	8.40	ppm	99
4) 2-Methylnaphthalene	6.150	142	185107	8.66	ppm	91
5) 1-Methylnaphthalene	6.241	142	169956	8.54	ppm	90
8) 1,1'-Biphenyl	6.561	154	198496	8.72	ppm	97
9) Acenaphthylene	6.955	152	285023	8.81	ppm	99
10) Acenaphthene	7.108	153	175193	9.32	ppm	96
11) Dibenzofuran	7.260	168	238961	9.48	ppm	# 68
12) Fluorene	7.565	166	224340	10.12	ppm	98
15) Pentachlorophenol	8.237	266	77332	26.27	ppm	99
16) Phenanthrene	8.419	178	273182	8.65	ppm	99
17) Anthracene	8.468	178	155042	4.48	ppm	98
18) Carbazole	8.611	167	147517	4.44	ppm	98
19) Fluoranthene	9.492	202	340353	10.07	ppm	100
21) Pyrene	9.718	202	337755	9.27	ppm	99
23) Benzo[a]anthracene	11.169	228	151060	4.71	ppm	100
24) Chrysene	11.223	228	138359	4.86	ppm	100
26) Benzo[b]fluoranthene	12.918	252	134147	4.45	ppm	99
27) Benzo[k]fluoranthene	12.972	252	127725	4.39	ppm	99
28) Benzo[a]pyrene	13.513	252	135159	4.69	ppm	100
29) Indeno[1,2,3-cd]pyrene	15.796	276	104054	4.40	ppm	95
30) Dibenz[a,h]anthracene	15.850	278	91797	4.07	ppm	97
31) Benzo[g,h,i]perylene	16.243	276	111469	4.17	ppm	98

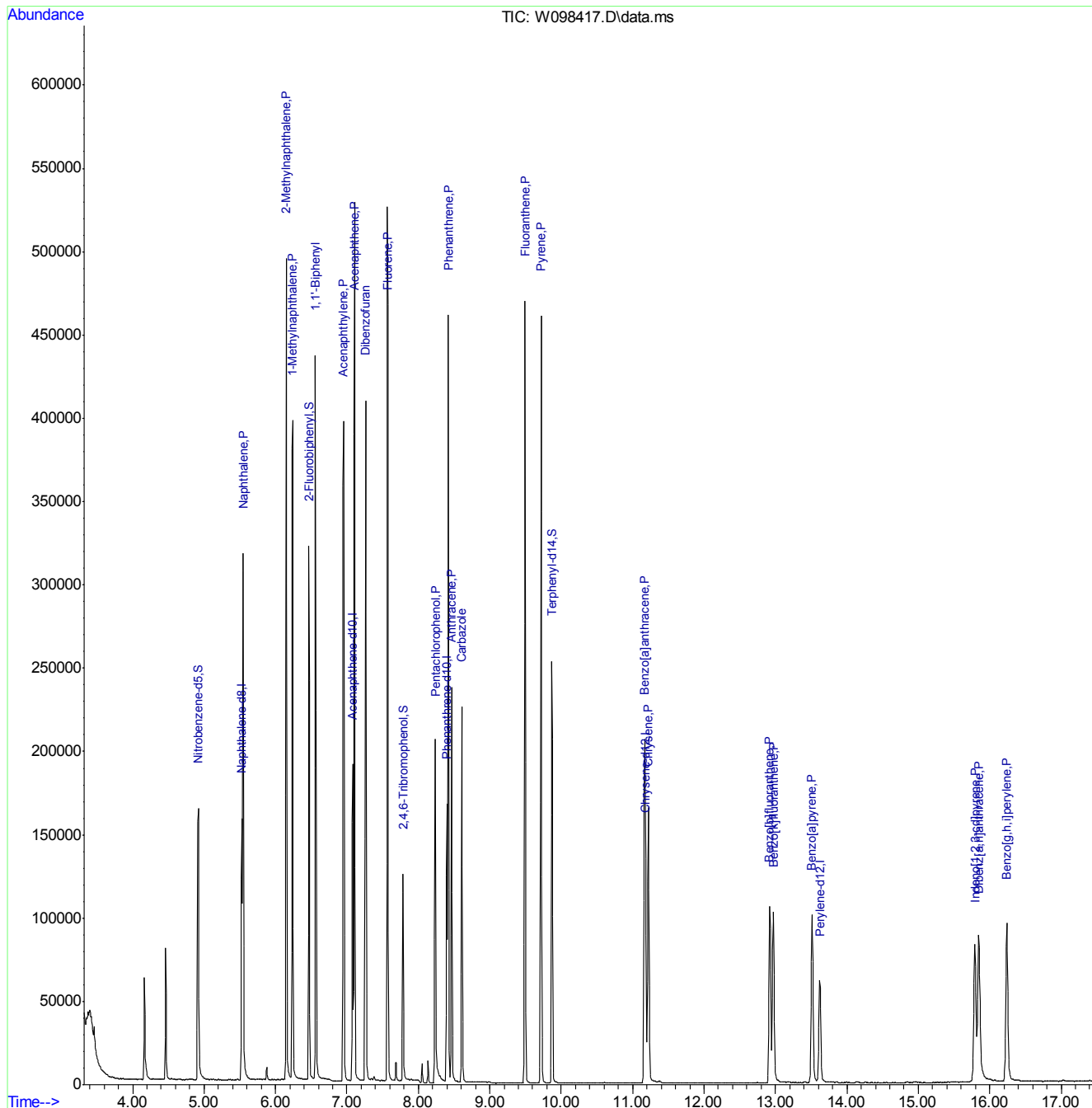
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
Data File : W098417.D
Acq On : 30 Mar 2017 10:06 am
Operator : fouads
Sample : cc4339-4
Misc : op64229,sw4370,15.0,,,1,1,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 30 10:34:57 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration

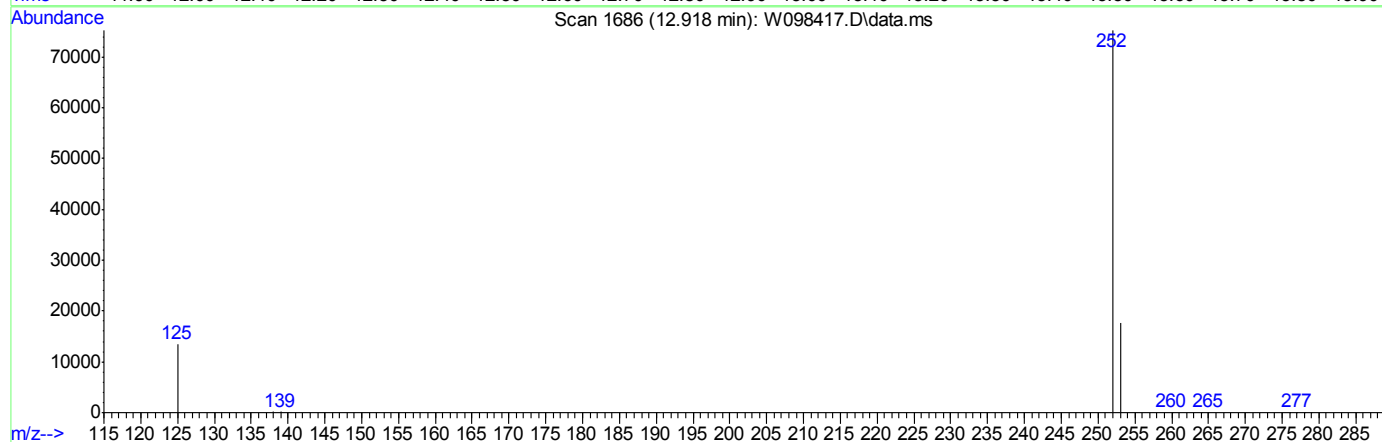
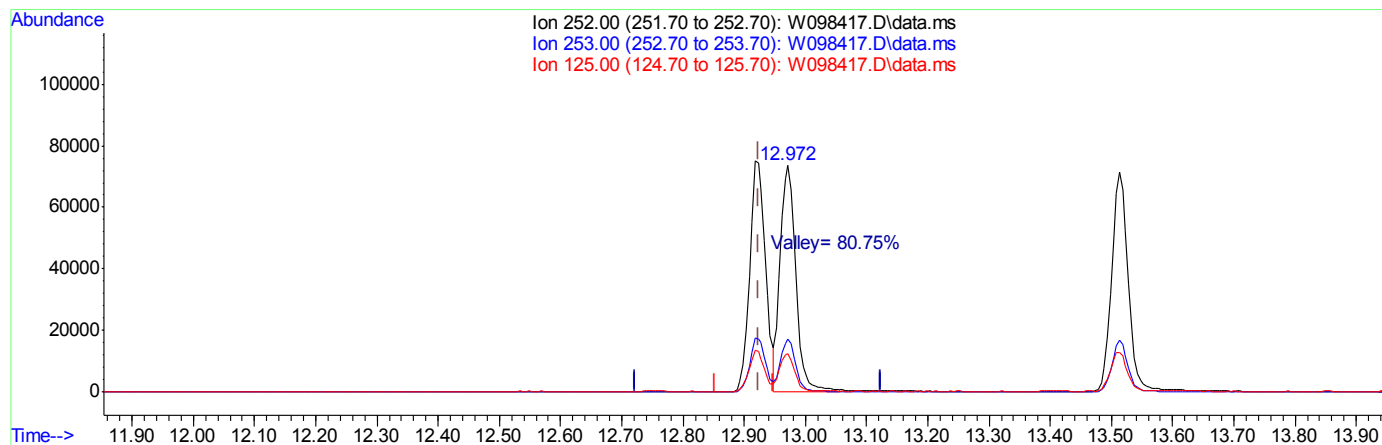


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\SW4370\
Data File : W098417.D
Acq On : 30 Mar 2017 10:06 am
Operator : fouads
Sample : cc4339-4
Misc : op64229,sw4370,15.0,,,1,1,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 30 10:34:57 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



TIC: W098417.D\data.ms

(26) Benzo[b]fluoranthene (P)

12.918min (-0.006) 4.45ppm

response 134147

Ion	Exp%	Act%
252.00	100	100
253.00	23.30	23.40
125.00	16.80	17.74
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
 Data File : W098443.D
 Acq On : 30 Mar 2017 8:28 pm
 Operator : fouads
 Sample : ecc4339-4
 Misc : op64358,sw4370,15.0,,,1,1,soil
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 31 07:20:06 2017
 Quant Method : C:\msdchem\1\METHODS\simpahf.m
 Quant Title : PAH's by 8270 SIM
 QLast Update : Thu Mar 02 08:24:54 2017
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Naphthalene-d8	5.534	136	105295	4.00	ppm	0.00
6) Acenaphthene-d10	7.079	164	59532	4.00	ppm	-0.01
13) Phenanthrene-d10	8.401	188	93914	4.00	ppm	-0.01
20) Chrysene-d12	11.185	240	75170	4.00	ppm	-0.01
25) Perylene-d12	13.626	264	69732	4.00	ppm	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	4.915	82	70586	9.39	ppm	-0.02
Spiked Amount 10.000	Range 40 - 105		Recovery =	93.90%		
7) 2-Fluorobiphenyl	6.473	172	167275	9.30	ppm	-0.02
Spiked Amount 10.000	Range 43 - 107		Recovery =	93.00%		
14) 2,4,6-Tribromophenol	7.786	330	34421	19.86	ppm	-0.01
Spiked Amount 20.000	Range 42 - 108		Recovery =	99.30%		
22) Terphenyl-d14	9.876	244	139141	8.95	ppm	0.00
Spiked Amount 10.000	Range 45 - 119		Recovery =	89.50%		
Target Compounds						
					Qvalue	
3) Naphthalene	5.547	128	221802	8.68	ppm	98
4) 2-Methylnaphthalene	6.154	142	172919	9.44	ppm	94
5) 1-Methylnaphthalene	6.238	142	149045	8.70	ppm	98
8) 1,1'-Biphenyl	6.564	154	182172	9.37	ppm	99
9) Acenaphthylene	6.955	152	258832	9.38	ppm	99
10) Acenaphthene	7.107	153	150205	9.34	ppm	99
11) Dibenzofuran	7.266	168	209302	9.71	ppm	94
12) Fluorene	7.571	166	184164	9.69	ppm	100
15) Pentachlorophenol	8.239	266	61275	24.83	ppm	98
16) Phenanthrene	8.421	178	234165	8.81	ppm	99
17) Anthracene	8.470	178	126147	4.34	ppm	98
18) Carbazole	8.613	167	126335	4.52	ppm	98
19) Fluoranthene	9.493	202	278780	9.79	ppm	99
21) Pyrene	9.719	202	288555	8.69	ppm	98
23) Benzo[a]anthracene	11.170	228	133498	4.57	ppm	99
24) Chrysene	11.224	228	120468	4.64	ppm	100
26) Benzo[b]fluoranthene	12.928	252	120499	4.66	ppm	98
27) Benzo[k]fluoranthene	12.977	252	114003	4.57	ppm	98
28) Benzo[a]pyrene	13.518	252	113812	4.61	ppm	99
29) Indeno[1,2,3-cd]pyrene	15.795	276	83910	4.13	ppm	95
30) Dibenz[a,h]anthracene	15.854	278	81177	4.19	ppm	98
31) Benzo[g,h,i]perylene	16.248	276	89834	3.91	ppm	98

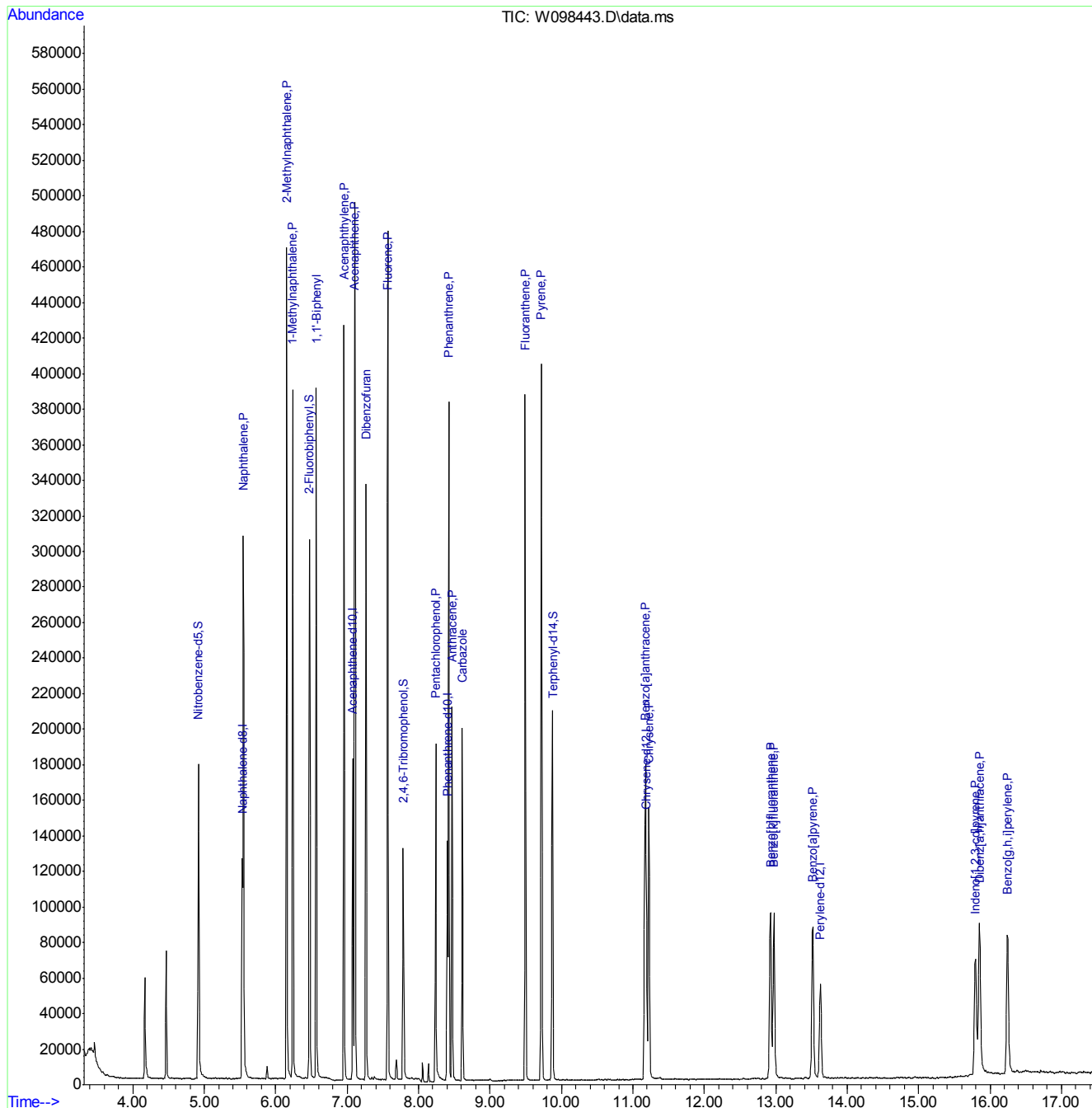
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\SW4370\
Data File : W098443.D
Acq On : 30 Mar 2017 8:28 pm
Operator : fouads
Sample : ecc4339-4
Misc : op64358,sw4370,15.0,,,1,1,soil
ALS Vial : 2 Sample Multiplier: 1

Inst : MSBNA01

Quant Time: Mar 31 07:20:06 2017
Quant Method : C:\msdchem\1\METHODS\simpahf.m
Quant Title : PAH's by 8270 SIM
QLast Update : Thu Mar 02 08:24:54 2017
Response via : Initial Calibration



SGS ACCUTEST-ORLANDO

DATE:	02/13/17
COLUMN TYPE:	9220 SIMP
AMOUNT INJECTED:	2 ul
INSTRUMENT:	MSBNA01-W

MS BNA01-W ANALYSIS LOG

METHODS:	8220 SIMP
ACQ. METHOD:	FAST-PATH
PROC. METHOD:	SIMP
CALIB. DATE:	01-24-17/02/17
RUN BATCH:	SW 4338/4339

ANALYST:	FS
MECL2 LOT #:	165140
DFTPP RESPONSE:	1598818
EM VOLTAGE:	2141/1882
ISTD Lot #:	55632

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
W 097269	1	dFTAP	dFTAP	5568	x/		TUNE PAGE 1
W 70	1	dFTAP					
W 71	2	LC4324-4	8220	5569	1001300		ccv page 1 of 28, 77, 33
W 72	3	0663693-65		0663693	x/		
W 73	4	F40943-5			x/4		✓ kept method, 2 set
W 74	5	8112					NA
W 76	1	dFTAP	dFTAP	5569			
W 77	1						
W 78	2	LC4324-4	8220				
W 79		dFTAP	dFTAP		x/		
W 80							
W 81							
W 82		dFTAP		5569			TUNE PAGE 1
W 83		LC4324-4	8220	5569	1001300		ccv page 1
W 84		LC4338-1		5569	51499 (1001300)		
W 85		LC4339-2			201180 (1001300)		
W 86		LC4339-3			504350 (1001300)		
W 87		LC4338-4			1001300 (1001300)		
W 88		LC4339-5			1501250 (1001300)		
W 89		LC4339-6			2001200 (1001300)		
W 90		LC4339-7			x/		

Manual Integration Rationale SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline R
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

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Analyst's Signature

(b) (6)

SGS ACCUTEST-ORLANDO

DATE: 02/13/17
COLUMN TYPE: 8220
AMOUNT INJECTED: 2 ul
INSTRUMENT: MSBNA01-W

MS BNA01-W ANALYSIS LOG

METHODS: 8220 SIMPLA
ACQ. METHOD: FMT 02H
PROC. METHOD: 81484H
CALIB. DATE: 8-22-14
RUN BATCH: SW 4339 02/13/17

ANALYST: F-3
MECL2 LOT #: 165140
DFTPP RESPONSE: 1578818
EM VOLTAGE: 1882
ISTD Lot #: 58632

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
W 097291	93	icv4339-4	82201	657896	20x		NO peak
W 92	3	063693-mb		063693	x1		NO
W 93	4	F-40887-40x			x1		Peak at 4x
W 94	5	F-41062-1		063755	20x		✓ Peak at 20x
W 95	6	F-41062-4			10x		✓ Peak at 20x
W 96	7	F-41062-6			x4		✓
W 97	8	-9			x80		✓
W 98	9	F-40887-3		063693	x1		✓
W 99	10	F-40887-1			x1		✓
W 097300	11	-4					✓
W 01	12	-6					✓
W 02	13	F-40887-1					✓
W 03	14	-2					✓
W 04	15	-3					✓
W 05	16	-4					✓
W 06	17	-5					✓
W 07	97	064339-4		55605	10x		Peak
W							
W							
W							
W							

Manual Integration Rationale SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline All strikeouts must be initiated and dated. If correction was not due to a transcription error, then list the reason for correction.

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Analyst's Signature

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(b) (6)

SGS ACCUTEST-ORLANDO

DATE:	03/22/17
COLUMN TYPE:	8200
AMOUNT INJECTED:	2 ul
INSTRUMENT:	MSBNA01-W

MS BNA01-W ANALYSIS LOG

METHODS:	8200 SIM PPL
ACQ. METHOD:	FAST PPL SP
PROC. METHOD:	SW PPL
CALIB. DATE:	02/13/17
RUN BATCH:	SW 4367

ANALYST:	P.S.
MECL2 LOT #:	165140
DFTPP RESPONSE:	
EM VOLTAGE:	1765
ISTD Lot #:	55648

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
W 098 311	1	4FTPP	4FTPP	55645	41		Tune ppr
W 12	2	LC4339-L4	8200	55605	100300		LCV ppr
W 13	3	064235-MB		064235	21		ND
W 14	4	-65					-
W 15	5	F42139-2					ND
W 16	6	-MS					-
W 17	7	-MSD					-
W 18	8	-3					ND
W 19	9	F42139-4		064280			ND
W 20	10	064340-MB		064340	41		ND
W 21	11	-85					-
W 22	12	F42067-1					-
W 23	13	-2					-
W 24	14	-3					-
W 25	15	-4					-
W 26	16	-5					-
W 27	17	-MS1					-
W 28	18	-MSD1					-
W 29	19	-6					-
W 30	20	-7					-
W 31	21	F42100-1					-

Manual Integration Rationale SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple (b) (6)
All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Analyst's Signature: _____

SGS ACCUTEST-ORLANDO

DATE:	03/27/17
COLUMN TYPE:	92009
AMOUNT INJECTED:	2ul
INSTRUMENT:	MSBNA01-W

MS BNA01-W ANALYSIS LOG

METHODS:	Wdms DC28
ACQ. METHOD:	85 Wdms
PROC. METHOD:	Wdms
CALIB. DATE:	6/13/28
RUN BATCH:	SW 4334

ANALYST: PLS
MECL2 LOT #: 165140
DFTPP RESPONSE:
EM VOLTAGE: 1725
ISTD Lot #: 34615955

[illegible]

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **Pll** Pll Instrument Integration

msbna01 w log.xls ME rev. 06/16

Analyst's Signature

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SGS ACCUTEST-ORLANDO

DATE: 03/30/17
 COLUMN TYPE: 8200
 AMOUNT INJECTED: 2 ul
 INSTRUMENT: MSBNA01-W

MS BNA01-W ANALYSIS LOG

METHODS: 8200 SIM, SP
 ACQ. METHOD: FMT-001, SP
 PROC. METHOD: SIM, SP
 CALIB. DATE: 02/13/17
 RUN BATCH: SW 4370

ANALYST: ES
 MECL2 LOT #: 165140
 DFTPP RESPONSE: 2952603
 EM VOLTAGE: 1763
 ISTD Lot #: 55648

DATA FILE	ALS #	SAMPLE ID	SAMPLE METHOD	OP BATCH	DF	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	COMMENTS
W 098416	1	dFTpp	dFTpp	55645	x1		TUNE passed
W 17	2	6.4339-4	8200	55605	1004300		ccv passed
W 18	3	F.42068-6		064209	x10		✓
W 19	4	-9		064266	x4		✓
W 20	5	81K					NA
W 21	6	F.42100-2		064340	x1		surge passed OK ✓
W 22	7	-4					surge failed ⇒ Rejected
W 23	8	F.42172-12.8		064320			surge failed ⇒ Rejected
W 24	9	-13.6					surge failed ⇒ Rejected
W 25	10	-14.6					↓
W 26	11	F.42097-11.9					↓
W 27	12	81K					Surge Failed ⇒ Rejected
W 28	12	F.42301-1		064367	x5		✓ 200 Hz Reg. p. to MATRA
W 29	13	-2			x5		✓
W 30	5	81K 116.410.17					NA
W 31	14	0.64358-mB		064116	x1		ND
W 32	15	0.64 116-85					✓
W 33	16	F.42100-4.65					✓ passed surge = Confirmed
W 34	17	81K					NA
W 35	17	0.64358-mB		064358	x1		ND
W 36	18	-85.10					✓

Manual Integration Rationale SOP QA029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument Integration
 All strikeouts must be initiated and dated. If correction was not due to a transcription error, then list the reason for correction.

Analyst's Signature:

msbna01_w_log.xls ME rev. 06/16

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DATE: 03/30/17
COLUMN TYPE: 822P1
AMOUNT INJECTED: 2 ul
INSTRUMENT: MSBNA01-W

METHODS: 8220 SIM PMH
ACQ. METHOD: FMT PMH SP
PROC. METHOD: SIM PMH SP
CALIB. DATE: 02/13/77
RUN BATCH: SW 4370

ANALYST: P.S.
MECL2 LOT #: 165140
DFTPP RESPONSE: 295 2603
EM VOLTAGE: 1763
ISTD Lot #: 55648

[illegible][illegible]

Analyst's Signature:

msbna01 w log.xls ME rev. 06/16

40 24 100

SGS ACCUTEST - ORLANDO

SOLID SAMPLE PREP REPORT

Date/Time: 03/26/17 1100
Started (mm/dd/yy 24:00)

Prep Method: 3546

Analytical Method: SIMPANDate/Time: 03/27/17 08:32
Finished (mm/dd/yy 24:00)Microwave ID / Program: MARS 2 1 SIMPANBatch#: OP64340Balance ID: ADUPRO 8.9Ext. By: ICConc. By: AEViald By: AE

Sample ID	Bottle Number	Amount / Extracted (g)	Surrogate Amount	Spike Amount	Final Volume (ml)	MW Pos	Comments
OP64340 MB	X	15.0	0.1ml		1.0ml	1	
OP64340 BS	X	15.0		0.5ml		2	
FA42067-1	1	14.7				3	
-2	1	15.1				4	
-3	1	15.0				5	
-4	1	14.8				6	
-5	1	15.4				7	
-6	1	15.0				8	
-7	1	14.8				9	
FA42100-1	1	14.7				10	
-2	1	15.2				11	
-3	1	15.3				12	
-4	1	14.7				13	
-5	1	14.8				14	
AE 03/27/17							
FA42067-5 MS ₁	1	15.3	0.1ml	0.5ml	1.0ml	15	
↓ MSD ₁	1	15.2				16	
FA42100-4 MS ₂	1	15.1				17	
↓ MSD ₂	1	15.2				29	
DUP							

Comments:

Surr. ID: ESB40H Conc: 200/100ppm Exp. Date: 09/10/17 Inj. By: IC Ver. By: IC
 Spk. ID: ES789H Conc: 20/10ppm Exp. Date: 06/21/17 Inj. By: IC Ver. By: IC

Initial Bath Temp (Therm ID): TV #5 Exchange Bath/N-Evap Temp (Therm ID): —
 Observed Temp °C: 45°C Corr. Temp °C: — Observed Temp °C: — Corr. Temp °C: —

CH₂CL₂ Lot # 166955 Hexane Lot # — Na₂SO₄ Lot# SS2203
 Acetonitrile Lot # — Methanol Lot # — Acetone Lot# 165424
 Syringe Filter Lot# — Filter Paper # — Reagent # —
 Copper Lot # — If Sulfur Cleaning is performed in Extractions (3660B)

Relinquish

Accepted

Date: 03/27/17Date: 03/27/17 @ 08:39

SOLID SAMPLE PREP REPORT

Prep Method: 3550C 3580A or Method (circle)

Analytical Method: Sim

Ext. By: NC - AA Conc. By: DC Viald By: DC Balance ID: AN PRS 9

[illegible]

Surr. ID: E5840 E Conc: 2.45/100 PPM Exp. Date: 09/10/11 Inj. By: KC Ver. By: AA
Spk. ID: E5855 A Conc: 2.3/10 PPM Exp. Date: 09/28/11 Inj. By: KC Ver. By: AA

Initial Bath Temp (Therm ID): <u>TU-4</u>	Exchange Bath/N-Evap Temp (Therm ID): <u>—</u>
Observed Temp °C: <u>40</u> Corr. Temp °C: <u>—</u>	Observed Temp °C: <u>—</u> Corr. Temp °C: <u>—</u>

CH2CL2 Lot # <u>12 02 32</u>	Hexane Lot # <u> </u>	Na2SO4 Lot# <u>SS 2205</u>
Acetonitrile Lot # <u> </u>	Methanol Lot # <u> </u>	Acetone Lot# <u>16 54 24</u>
Syringe Filter Lot# <u> </u>	Filter Paper # <u>9685149</u>	Reagent # <u> </u>
(b) (6)		
Copper		Extractions (3660B)

Date: 03/30/17

Date: 3/30/17